3rd Annual Meeting of European Society of Paediatric Endoscopic Surgeons - ESPES & 22nd Congress of GECI

September 26-28, 2013
Marseille, France
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Dear Collegues, Dear Friends,

It is our great pleasure to welcome you in Marseille for the 3rd congress of the ESPES joint with the 22th congress of the GECI (Groupe d’Etudes en Coeliochirurgie Infantile).

Three years have passed since the Europeen Society of Pediatric Endoscopic surgeons was founded. This year promises to be an outstanding meeting, with an exciting scientific programme, a wide array of networking and information-sharing.

We are honored to host the ESPES Congress at the Timone hospital, the largest medical complex in the middle of the town offering a wonderful panorama from the top of the building.

Despite its timeless 2000 years’ old beauty, Marseille bears a new face. The “old harbour” area has been entirely relooked for pedestrians, 2 new museums with one dedicated to the Mediterranean art (Mucem) looking over the sea will surprise visitors with its architecture and superb collections. Attractive, accessible and cosmopolitan, Marseille is a city reflecting the personality of its people. Good work within the 2013 European Capital of Culture and...Capital of the Paediatric Endoscopic Surgery.

Pr Pascal De Lagausie
Congress Chairman

Dear Colleagues,

The GECI is honoured to join the European Society of Paediatric Endoscopic Surgeons for the meeting held in Marseille from 26 to 28th September 2013. Our annual pleasure to friendly share questions, experiences and tricks with our francophone colleagues about minimally invasive surgery in children will be enhanced this year by the numerous participants coming from all Europe.

Many current issues were planned to be discussed, including robotic, single incision approach or simulation in surgery. We can hope that such informal exchanges will lead to further european multicentric clinical studies, allowing improvements in cares to our young patients. About one quarter of accepted communications came from teams with GECI members, showing that at 22 year-old, our group is still very dynamic, paving the way for our young European Society to have a long and enthusiastic life.

Pr Guillaume Podevin
GECI President
Dear Members, Guests and Friends,

It is a pleasure to welcome you all to the joint 3rd Annual Congress of ESPES and 22nd Annual Congress of GEI in Marseille, which promises to be an excellent programme for all qualified and trainee surgeons who may have an interest in paediatric minimal access surgery and advances of technology, as well as allied specialists, scientists, technicians, nurses and industry.

The 1st half of day one “Thursday 26th”, is dedicated to an intensive expert lead advanced workshop (Masterclass – Laparoscopic Renal Surgery) and a parallel basic hands-on workshop. The scientific programme will start in the afternoon and continues throughout Friday 27th and Saturday morning 28th, covering all aspects of basic and advanced minimal access surgery and technology in children, including thoracoscopy, gastrointestinal and urological laparoscopy, oncology as well as basic science. There will be three keynote lectures-Hepatobiliary Surgery: the Minimal Invasive approach and Aspiring to Authorship, and one minisymposia/ panel discussion – Minimal Invasive Surgery for Congenital Thoracic malformation.

As usual, the abstract, programme and organising committees, have made specific efforts to include all levels and styles, but appropriate and proportionate, contributions from all over Europe and beyond; keep the cost of both the workshops and congress to bear minimum so the less privileged and trainees can benefit and contribute.

I am extremely grateful to the Local Organisers in particular Jean Michel Guys and Pascal de Lagausie, Nathalie Fontant and ESPES/GEI Members of the Organising Committee for making this event possible and enjoyable.

I would also like to thank the sponsors, industry partners and those who have helped before, during and after the congress.

I look forward to seeing you all in Marseille - September 2013.

Pr Azad Najmaldin
ESPES
Pr Olivier REINBERG
MD, Professor
Pediatric Surgeon FMH and EBPS.
Dept of Pediatric Surgery
University Hospital of Lausanne
CH - 1011 Lausanne - CHUV
Switzerland

MD since 1976
Professor of Pediatric Surgery
Specialist in Pediatric Surgery of the FMH (Federatio Medicorum Helvetiae), Certified by the European Board of Paediatric Surgery (EBPS)
Member of the staff of the Pediatric Surgical Department of the University Hospital of Lausanne (CHUV), Switzerland.
Head of the Pediatric Surgical Emergencies (1989-2003)

Member of numerous scientific and medical organizations.
More than 150 publications. 15 chapters in books
Several Prices and University Distinctions

**Fields of interest and research:**


2. Esophageal replacements in children.
   Studies on esophageal functions in children


Pr Alexandr Yu. Razumovskiy

Current position:
MD/PhD, Professor,
Head(Chair) Of Pediatric Surgery in Russian State Medical University
Head of Department of Thoracic and Gastroenterological Surgery in Filatov Children's Hospital,
Moscow, Russia
Leading Expert in Pediatric Surgery of the Department of Health Care of Moscow
Head of Research Department in the Pediatric Surgery in Federal Scientific and Clinical Center of
Pediatric Hematology, Oncology and Immunology named after Dmitriy Rogachev, Moscow, Russia

Member of executive board of:
Moscow's Society of Pediatric Surgeons
Russian Society of Endoscopic Surgeons
Russian Society of Gastroenterological Surgeons

Several national and professional Awards for research works in Pediatric Surgery: Award of Russian
Government (2001), Award of Russian Academy of Medical Science (1996, 2001),
"Vocation"Professional Award (2002, 2004)

Author and co-author of more than 400 articles and 14 books on Surgery ("Surgical Treatment of
Laryngeal and Tracheal Stenosis in Children", "Surgical Treatment of Gastroesophageal Reflux in
Hypertension in Children"," National Manual of Pediatric Surgery", etc)

Member of Editorial board:
Pediatric Surgery (RUS)
Questions of Practical Pediatrics (RUS)
Annals of Surgery (RUS)
Russian Gazette of Pediatric Surgery, Anesthesiology and Intensive Care
Mark Davenport qualified in 1981 from the University of Leeds. Surgical training at Leeds, Sheffield and Manchester followed before arriving in London in 1989. He has a postgraduate research degree (ChM) awarded from the University of Leeds for experimental work on liver transplantation.

He was appointed as a consultant paediatric surgeon at Kings College Hospital in 1994 and since 1998 has been Head of Department. His main clinical interests are hepatobiliary diseases such as biliary atresia and choledochal malformations with research supported by the Institute of Liver Studies and antenatally diagnosed surgical malformations (e.g. diaphragmatic hernia) supported by the Harris Birthright Centre for Fetal Medicine.

Since 2008 he has been honoured with a personal chair in paediatric surgery from Kings College, London.

He actively promotes medical writing and has now edited two textbooks on general paediatric surgery and written over 200 predominantly research-orientated papers and reviews together with over 50 chapters on a variety of surgical topics.

He is the current UK editor of the Journal of Pediatric Surgery, and is an editorial board member of Pediatric Surgery International & the European Journal of Paediatric Surgery.
COMMITTEE

ORGANISING COMMITTEE
Pascal De Lagausie (France)
Azad Najmaldin (UK)
Guillaume Podevin (France)
Ciro Esposito (Italy)
Zacharias Zachariou (Switzerland)
Paul Philippe (Luxemburg)
Amulya Saxena (Austria)
Naved Alizai (UK)
Juan de Agustin (Spain)

PROGRAM COMMITTEE
Azad Najmaldin (UK)
Alessandro Settimi (Italy)
Ciro Esposito (Italy)
Juan de Agustin (Spain)
Zacharias Zachariou (Switzerland)
Amulya Saxena (Austria)
Naved Alizai (UK)
Hubert Lardy (France)
Jean Breaud (France)

ABSTRACT COMMITTEE
Azad Najmaldin, Ciro Esposito, Naved Alizai, Henrik Steinbrecher, Manuel Lopez, Emir Haxhija,
Stefan Gloerer, Aydin Yagmurlu, Dariusz Patkowski for the ESPES
Jean Breaud, Frédéric Elbaz, Hubert Lardy, Mario Mendoza, Paul Philippe, Guillaume Podevin for the GECI

PRIZE COMMITTEE
Amulya Saxena (Chairman), Alessandro Settimi, Philippe Montupet, Azad najmaldin

KEYNOTE SPEAKERS
Speakers: Mark Davenport (UK), Alexander Razumovskiy (Russia), Olivier Reinberg (Switzerland)
GENERAL INFORMATION

VENUE
Timone Children's hospital
Amphithéâtre Adulte HA1 - Rdz
264 rue Saint Pierre 13385 Marseille Cedex 5
Pr Jean-Michel Guys (France)
Phone: +4 91 38 66 82

LOGISTICS
Atelier Phenix
41 rue du docteur Morucci 13006 Marseille (France)
Phone: +33 4 91 37 50 83 / e-mail: nfontant@aphenix.com / internet: www.aphenix.com

REGISTRATION DESK
The Secretariat and Registration desk will be located in the hall of the meeting room HA1.

Openin hours:
Thursday, 26th September  7.30 am - 7.00 pm
Friday, 27th September  8.00 am - 6.00 pm
Saturday, 28th September  8.00 am - 1.00 pm

REGISTRATION INCLUDES
• Admission to all scientific sessions, poster presentation and exhibition area
• Congress bag with congress documents
• Coffee breaks and Lunches
• Final Program, Abstract book
• Certificate of attendance
* Evening reception Thursday 26th

BADGES
Your personal badge is your entrance ticket to the Congress Venue and all Scientific Sessions. Due to security regulations, badges must be worn at all times throughout the scientific meeting

POSTERS
Posters have to be attached in the spaces provided Thursday morning from 8.00 am to 1.00 pm.

ON-SITE REGISTRATION’S RATE

- Masterclass 100 €
- ESPES/GECI Members 210 €
- Non Members 240 €
- Congress dinner on Friday: 60 €
TRAVEL INFO

HOW TO GO TO THE VENUE

BY CAR

* From the airport Marignanne by motorway A55
Head to south East – follow the motorway D20D – stay on the right lane and follow A7 to Marseille / Aix-en-Provence / Fos –sur-Mer and take the D20 – take the ramp exit D9 – meet the D113 in the direction of Fos-Martigues/Marseille/Aix-en-Provence – meet motorway A7 – take the exit A55 in the direction of Marseille –Vieux Port/ L’Estaque – stay on the left and meet the A55 – exit to the left and meet the motorway A50 in the direction of Aubagne exit 2 – take the right exit on the Bd Jean Moulin.

* From the train station:
Head the north-East in the Street Honnorat to street Crimée – Second in the right on the Bd Voltaire – take the Bd de la liberté – continue on the street de la Grande Armée – continue on the street Adolphe Thiers – then on the Curios – slight in the right on the Pl. jean Jaurès – street saint Pierre and follow the road D2.

BY TAXI

- From the airport: book your taxi by phone +4 42 88 11 44
Internet: www.taxis-aeroport.com / Email: taxis@taxis-aeroport.com
Or grab one at the exit of your terminal. Average cost: 60-70 €.

- From the station: outside of the station, just follow the signs « taxi ».
Average cost: 15 €.

BY BUS SHUTTLE

Shuttle every 20 minutes from the airport. From 05:10 am to 00:15 am.
Cost: Between 8 € (one-way, no subway ticked included) and 13.60 € (round trip, subway tickets included).

BUS

From the train station: lines 14, 40, 54, 72, 91.

SUBWAY

Line 1 to « La Fourragère » and stop at « Timone » station. Go to the main entrance « rue Saint Pierre » and ask then for amphitheatre HA1.
DINNERS

THURSDAY DINNER – 7:30 pm
LA NAUTIQUE
Pavillon Flottant  Société la Nautique (in front of 20 quai de Rive-Neuve)
13007 Marseille

FRIDAY DINNER – 7:30 pm
CLUB DU VIEUX PORT
3 Place aux huiles
13001 Marseille
CONGRESS VENUE and DINNERS
2. La Nautique (Thursday dinner) - Pavillon Flottant – 13007 Marseille (in front of 20 quai Rive Neuve)
3. Club du Vieux Port (Friday dinner) – 3 place aux huiles – 13001 Marseille

HOTELS
4. Ibis Timone – 107 boulevard Sakkini – 13005 Marseille – Tél. : + 4 91 42 09 15
5. Ibis Style Marseille Timone – 1-3 chemin de l’armée d’Afrique – 13005 Marseille – Tél. : + 4 91 29 73 70
6. MGallery Beauvau – 4 rue Beauvau – 13001 Marseille – Tél. : + 4 91 54 91 00 (Subway line 1: 4 stops)
7. Mercure Marseille Centre – 1 rue Neuve Saint-Martin - 13001 Marseille – Tél. : +4 96 17 22 22 (Subway line 1: 4 stops)
8. Ibis Budget Vieux Port - 46 rue Sainte – 13001 Marseille – Tél. : + 892 68 05 82 (Subway line 1: 4 stops)
ABOUT MARSEILLE

2600 years of history and a heritage of exception, Marseille is situated in the southeast of France, in Provence. Marseille is lined by the Mediterranean Sea on the West, enclosed by the massif of Estaque and the massif of the Star in the North, Garlaban in the East, massif of Saint-Cyr (French military academy) and the mount Puget in the southeast and the massif of Marseilleveyre in the South. Marseille is, by freeways, 775 km from Paris, 316 km from Lyon, 204 km from Nice, 405 km from Toulouse, 400 km from Genoa, 373 km from Turin and 501 km from Barcelona.

Marseille has a maritime facade of 57 kilometers, a moderate climate including 24 kilometers of creeks and offering attractive summery temperatures in September. The creeks of Marseille extend over more than twenty kilometers on the coast of the Mediterranean Sea. It is one of the most remarkable sites of France, and the major zone of natural resources and sports activities. The creeks count a million visitors a year.

Marseille, a dynamic city, is accelerating and rapidly expanding!

660 million euros have been invested in 4 years in: town planning, transport, culture, tourism, congress and general economy.

This year Marseille is the European Capital of the Culture and several infrastructures of the city were renewed for this occasion to propose more than 400 events all year round.

35 million euros were dedicated to the extension of the museum of History of Marseille, in Centre-Bourse. It will display unique masterpieces to the visitors.

The Old Harbor has also been remodeled and is now welcoming again the pedestrians.

The new Museum of the Civilizations of Europe and the Mediterranean Sea (MUCEM) as well as the Mediterranean Sea Villa will open respectively in March and June 2013.

MUCEM

Basilique Notre Dame de la Garde
EXPOSURES

**Gianluigi Toccafondo in fotokino studio - 33 Allées Léon Gambetta 13001 Marseille**
(www.fotokino.org) - September 7 to September 29, from Wednesday to Sunday from 2 pm to 6 pm

On the occasion of Marseille Provence 2013 Fotokino party, the 10th edition of « Lenterna Magica », is an all year proposition: the exposition, Studios (Workshops ?), projections, audio-stroll, meetings…

**Temporary Exposure « Les Lumières » in the Museum of natural history of Marseille**
(www.museum-marseille.org) - From June 18, 2013 to January 5, 2014

According to the way of the light, his source (spring) of broadcast in its reception, by way of flows of energy, messages of the material(subject) and the organization of time(weather) and of the life … "Light" lights us on this daily and vital element of our environment.

**Zineb Sedira in Grand Port Maritime of Marseille : Port of memory**

Zineb Sedira’s project is the third installment of a video triptych. It focuses on the Port of Marseille, and will build on previous videos featuring the Port of Algeria and the ferry crossing between Algeria and Marseille. To complete the project, Sedira will take residence at the port. The video will be filmed in 2012.

**2031 en Méditerranée, nos futurs – temporary way – in the Villa Mediterranean Sea**
from 15 June to 28 September, from Tuesday to Thursday, from 12 am to 7 pm, Friday from 12 am to 11 pm, Saturday and Friday from 10 am to 7 pm.

Of this extremely rich material, Régis Sauder weaved an immense fresco of images planned on four faces in thematic "boxes" where the visitor dives (the Mediterranean space, the question of identity, environment and governance ). The road we are taken along leaves an open mind from the drawing, with the work on sounds, and with the interactivity...

**Villa Méditerranée**
INSTRUCTIONS TO AUTHORS AND PRESENTERS

Your presentations should be saved as a PowerPoint 2003 or 2007 Windows and on a CD or a USB key.

You should give your presentation to the tech located in the HA1 amphitheater as soon as possible and in any case at least one hour prior your time.
If your presentation is scheduled for the 1st morning session, we strongly recommend you to arrive the day before.
If it includes a movie, please check with the tech that it is readable and works. Don't use anything but the usual standards that can be read with any PC Windows XP, Vista or Seven. You won't be allowed to use your own computer.

The excellency of our meeting mainly depends on you and the way you are going to present your work. The scientific committee and the organizing committee inform you of the following rules:

Abreviations used in the program:
VP: Video Presentation
OP: Oral Presentation
P: Poster

VIDEO AND ORAL PRESENTATIONS
Their duration can vary. The precise time of each presentation is mentioned in the program. Please carefully note that you are requested to respect the time given to yours. Indeed, the time devoted to discussion is essential, that is why the moderators will be strict and may interrupt you, should you be on the brink of exceeding your presentation time in order to ask you to conclude.

POSTERS
Posters have to be attached in the spaces provided Thursday morning from 8.00 am to 1.00 pm.

In the program, each poster has been given a code that is going to be indicated on the panel where it has to be presented. Your panel should be 1,80 m high and 0,95 m wide (since each panel is 2 m high and 0,95 m wide). The material to fix your poster will be given by the organizers. Posters left on the panels at the end of the meeting will not be sent back to their authors.

Posters can be seen at all time by the registrants.
# PROGRAM AT A GLANCE

## THURSDAY, 26<sup>TH</sup> SEPTEMBER 2013

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>08:00-08:30</td>
<td>Workshop registration</td>
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<tr>
<td>07:30-18:30</td>
<td>Congress Registration</td>
</tr>
<tr>
<td><strong>WORKSHOP BASIC</strong></td>
<td><strong>MASTERCLASS: Laparoscopic Renal Surgery</strong></td>
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<tr>
<td><strong>Faculty:</strong> A Najmaldin, C Esposito, A ElGhoneimi, S Hennayake, F Chiarenza, A Cherian, F Varlet, M Lopez</td>
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<tr>
<td>08:30-09:30</td>
<td>Introduction and Lectures</td>
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<tr>
<td>09:30-10:30</td>
<td>Endotrainer practice</td>
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<tr>
<td>10:20-10:50</td>
<td>Coffee Break</td>
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<tr>
<td>11:00-11:35</td>
<td>Endotrainer practice</td>
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<tr>
<td>13:20-13:50</td>
<td>Light Lunch</td>
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<tr>
<td>08.30-10.30</td>
<td>Expert views, Tips &amp; Tricks Trouble shooting, How I do it</td>
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## ESPES CONGRESS

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>14.00-14.10</td>
<td>Opening Remarks: De Lagausie (FR)</td>
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<tr>
<td>14.30-15.30</td>
<td>SESSION I GI 1: Draghici (ROM), Mendoza (CH)</td>
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<tr>
<td>15.30-16.03</td>
<td>Poster I Steyaert (BE), Gfoerer (GER)</td>
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<tr>
<td>16.03-16.30</td>
<td>Coffee Break &amp; Exhibition</td>
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<tr>
<td>16.30-17.36</td>
<td>SESSION II THORAX: Podevin (FRA), Di Benedetto (ITA)</td>
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<tr>
<td>17.36-18.06</td>
<td>ESPES Richard Wolf Lecture: Hepatobiliary Surgery: The Minimal Invasive Approach</td>
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<tr>
<td>19.30-21.00</td>
<td>ESPES/GECI/LOCAL ORGANIZERS Reception</td>
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## FRIDAY, 27<sup>TH</sup> SEPTEMBER 2013

<table>
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<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>08.00-09.00</td>
<td>Registration</td>
</tr>
<tr>
<td>09.00-10.37</td>
<td>SESSION III UROLOGY: Beltra (ESP), Philippe (LX)</td>
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<tr>
<td>10.37-11.07</td>
<td>KEYNOTE LECTURE II: Aspiring to Authorship</td>
</tr>
<tr>
<td>11.07-11.30</td>
<td>Coffee Break &amp; Exhibition</td>
</tr>
<tr>
<td>11.30-13.00</td>
<td>SESSION IV GI 2: Elbaz (FRA), Cingel (SLOV)</td>
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<tr>
<td>13.00-14.00</td>
<td>Lunch &amp; Exhibition</td>
</tr>
<tr>
<td>14.00-14.30</td>
<td>Poster II: Breaud (FRA), Antoniou (GRE)</td>
</tr>
<tr>
<td>14.30-14.50</td>
<td>President’s Address: A. Najmaldin</td>
</tr>
<tr>
<td>14.50-16.00</td>
<td>SESSION V Miscellaneous: Patkowski (POL), Juan De Agustin (ESP)</td>
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<tr>
<td>16.00-16.30</td>
<td>Coffee Break &amp; Exhibition</td>
</tr>
<tr>
<td>16.30-17.00</td>
<td>KEY NOTE LECTURE III: Esophageal replacement in children</td>
</tr>
<tr>
<td>17.00-18.00</td>
<td>Annual General Meeting ESPES Members ONLY</td>
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<tr>
<td>19.30-23.00</td>
<td>Annual Dinner &quot;ticket holders only&quot;</td>
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## SATURDAY, 28<sup>TH</sup> SEPTEMBER 2013

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>08.00-09.00</td>
<td>Registration</td>
</tr>
<tr>
<td>09.00-10.30</td>
<td>SESSION VI GI 3: Appignani (ITA), Haddad (UK)</td>
</tr>
<tr>
<td>10.30-11.00</td>
<td>Coffee Break &amp; Exhibition</td>
</tr>
<tr>
<td>11.00-11.33</td>
<td>Poster III: Marven (UK), Tokar (TUR)</td>
</tr>
<tr>
<td>11.33-12.30</td>
<td>ROUND TABLE: Minimal Invasive Surgery for Thoracic Congenital Malformation</td>
</tr>
<tr>
<td>12.30-12.40</td>
<td>ESPES Executive Board Prizes for the: &quot;Best Presentation - 300Euro&quot; &amp; &quot;Best Idea- 500Euro&quot; Chairman: Amulya Saxena (AT)</td>
</tr>
<tr>
<td>12.40-12.50</td>
<td>CLOSING REMARKS: Czauderna (POL)</td>
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</table>
**MASTERCLASS**

**THURSDAY, 26th SEPTEMBER 2013 – 08.30-13.20**

**LAPAROSCOPIC RENAL SURGERY**

“Expert views, Tips & Tricks, How I do it, and Discussion”

**Organisers & Chairmen:** Azad Najmaldin & Ciro Esposito

**Faculty:** Azad Najmaldin, Ciro Esposito, Fabio Chiarenza, Aiaa El Ghoneimi, Francois Varlet, Manuel Lopez, Supul Hennayake, Abraham Cherian

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
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<tbody>
<tr>
<td>08.00-08.30</td>
<td>Registration</td>
</tr>
<tr>
<td>08.30-08.40</td>
<td>Introduction</td>
</tr>
</tbody>
</table>
| 08.40-09.40 | Access: Transperitoneal  
Extraperitoneal - Lateral  
- Posterior  
- Anterior |
| 09.40-10.20 | Nephrectomy for malignant tumour                                           |
| **10.20-10.50** | **Coffee Break**                                                            |
| 10.50-11.30 | Heminephrectomy                                                          |
| 11.30-11.50 | Ureterectomy                                                             |
| 11.50-12.50 | Pyeloplasty                                                              |
| 12.50-13.10 | Vessel hitch for PUJ obstruction                                          |
| 13.10-13.20 | Conclusions                                                              |
| **13:20-13:50** | **Light lunch**                                                            |
WORKSHOP BASIC
THURSDAY, 26th SEPTEMBER 2013 – 08.30-13.20

Basic Laparoscopic Pediatric Skills – Basic low cost Models

“Training in 5 mm and 3 mm pelvi-trainers – ureteropelvic junction and oesophageal atresia models”

Organisers & Chairmen: Jean Breaud – Isabelle Lacreuse

Faculty: Jean Breaud, Emilie Essartier, Laurent Fourcade, Isabelle Lacreuse, Jean-Francois Lecompte, Guillaume Podevin, Philine DeVries

08.00-08.30 Registration
0830-08.40 Introduction
8.40-10.20 Training in basic suturing / models

10.20-10.50 Coffee Break
10.50-13.00 Training in models (oesophageal atresia model / ureteropelvic junction model)
13.00-13.20 Conclusions

13:20-13:50 Light lunch
DETAILED PROGRAM

THURSDAY, 26th SEPTEMBER 2013

14:00-14:10 Opening Remarks: De Lagausie (FR)

14:10-15:25 SESSION I GI 1: Draghici (ROM), Mendoza (CH)

14:10-14:17 (VP001) LAPAROSCOPIC STAPLED CAECAL TUBE FOR ACE IN A CHILD AFTER LADD’S PROCEDURE AND APPENDECTOMY FOR MALROTATION.
Paul Philippe, Cindy Gomes, Jerry Kieffer, Monika Glass
Clinique Pédiatrique, Centre Hospitalier de Luxembourg, Luxembourg, Luxembourg

14:17-14:24 (OP003) LAPAROSCOPIC PARTIAL SPLENECTOMY: IS IT POSSIBLE? WHAT IS IT FOR?
François Becmeur, Isabelle Lacreuse, Raphael Moog, Clémence Klipfel, Valérie Flaum, Anne Schneider
Hôpitaux Universitaires de Strasbourg, Strasbourg, France

14:24-14:31 (OP004) ROBOT-ASSISTED MINIMALLY INVASIVE FUNDOPPLICATION IN INFANTS AND TODDLERS – IS AGE A LIMITATION?
Thomas Cundy¹, Nicholas Gattas², Alan White², Azad Najmaldin²
¹The Hamlyn Centre, Imperial College London, London, UK
²Leeds General Infirmary, Leeds, UK

14:31-14:38 (VP005) LAPAROSCOPIC TRANSHIATAL RESECTION OF INTRATHORACIC OESOPHAGEAL DUPLICATION.
Sabine Vasseur MAURER, Mengu MA TOOH, Olivier REINBERG
CHUV, chirurgie pédiatrique, Lausanne, Switzerland

14:38-14:45(OP006) LAPAROSCOPIC REPAIR OF MORGAGNI DIAPHRAGMATIC Hernia in Children
ÀN ORIGINAL TECHNIQUE (ABOUT 14 CASES).
Fouad ETTAYEBI, Houida OUUBEJJA, Hicham ZERHOUNI, Mounir ERRAJI
Department of Paediatric Surgery, Children’s Hospital of Rabat, Rabat, Morocco

14:45-14:52 (VP007) LAPAROSCOPIC TREATMENT OF TYPE IV GIANT PARAESOPHAGEAL HERNIA. CRITICAL STEPS OF THE PROCEDURE.
Carolina Corona, Julio Cerdá, Isabel Simal, Ana Tardaguila
Servicio de Cirugía Pediátrica. Hospital Infantil Gregorio Marañon, Madrid, Spain

14:52-14:59 (OP008) COMPLICATIONS AFTER PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (PEG) IN CHILDREN.
Ciro Esposito, Agnese Roberti, Erasmo Miele, Anna Maria Staiano, Maria Escolino, Marianna Iaquinto, Francesca Alicchio, Ida Giurin, Alessandro Settimi
University of Naples Federico II, Naples, Italy

14:59-15:06 (OP009) LAPAROSCOPIC CARDIomyotomy for ACHALASIA IN CHILDREN.
Alexander Razumovsky¹,² Saidkhassan Bataev¹,³, Abdumanap Alkhasov¹,², Zorichto Mitupov¹,², Victor Rachkov⁵, Roman Ignatyev⁵, Ali Ferzouly⁵, Ekaterina Ekimovskaya⁵, Adlan Dadaev⁵, Sultan Ayskanov⁵
¹Department ofFilatov Children’s Hospital, Moscow, Russia
²Faculty of Pediatric Surgery of Russian State Medical University, Moscow, Russia
³Plastic and reconstruction pediatric surgery unit of the RAMS and SI RAS, Moscow, Russia
15:06-15:13 (VP010) **MINIMALLY INVASIVE SURGERY FOR COMPLEX AND COMPLICATED ANORECTAL MALFORMATIONS IN CHILDREN.**
Ashish Wakhlu
King George Medical University, Lucknow, India

15:13-15:23 (OP) **ESPES MULTICENTRE MIS AUDIT**
Antonio Marte & Naved Alizai

15:25-15:56 **POSTER I GI: Steyaert (BE), Gfoerer (GER)**

15:25-15:26 (P001) **INTRACORPOREAL KNOTTING OF APPENDICULAR BASE, AND APPENDIX RETRIEVAL. CAN WE BE MORE INNOVATIVE?**
Saqib Hamid Qazi, Ahmad Vaqas Faruque
Aga Khan University Hospital, Karachi / Sind, Pakistan

15:26-15:29 (P002) **MINIMAL INVASIVE PEDIATRIC SURGERY IN TIMISOARA.**
Eugen Sorin Boia, Stelian Pantea, Marius Calin Popoiu, Doru Vasilie, Radu Emil Iacob, Vlad Laurentiu David
University of Medicine and Pharmacy "Victor Babes", Timisoara, Romania

15:29-15:32 (P003) **LAPAROSCOPIC RIGHT HEMICOLECTOMY FOR CARCINOID TUMOR OF THE APPENDIX IN A 15-YEARS-OLD BOY.**
Inge Ifaoui, Ulrich Knigge, Jørgen Thorup
Rigshospitalet, Copenhagen Ø, Denmark

15:32-15:35 (P004) **MINIMALLY INVASIVE SURGERY FOR TREATMENT OF SECONDARY INTESTINAL INTUSSUSCEPTION IN CHILDREN WITH BLUE RUBBER BLEB NEVUS. TWO CASES.**
Maria Grazia Scuderi¹, Ciro Esposito², Alessandro Settimi², Vincenzo Di Benedetto¹
¹Pediatric Surgery Department, University of Catania, Catania, Italy
²Pediatric Surgery Department, University “Federico II” Naples, Naples, Italy

15:35-15:38 (P006) **LAPAROSCOPIC GASTRIC FUNDOPICATION IN CHILDREN UNDER 6 KG: AS WELL AS IN OLDER CHILDREN?**
Vladimir Gomola, Jerome Viala, Philippe Sachs, Sophie Soudée, Alaa El Ghoneimi, Arnaud Bonnard
Robert Debré Children University Hospital, Paris, France

15:38-15:41 (P007) **AN UNUSUAL CAUSE OF ANTRO-PYLORIC STENOSIS IN A CHILD.**
Mario Mendoza-Sagaon, Flurim Hamitaga, Natalia Voumard, Karen Herreman-Suquet
Ospedale Regionale di Bellinzona e Valli, Bellinzona, Switzerland

15:41-15:44 (P008) **LAPAROSCOPIC RESECTION OF CHOLEDOCHAL CYST: A MODIFIED TECHNIC.**
Ferit Bernay, Burak Tander, Ezgi Gun
Ondokuz Mayis University, Department of Pediatric Surgery, Samsun, Turkey

15:44-15:47 (P009) **THE COMPARISON OF THE CRP LEVEL IN OPEN, LAPAROSCOPIC AND LAPAROSCOPY ASSISTED APPENDECTOMY IN CHILDREN.**
Agnieszka Wiejek, Dominika Lubacka, Andrzej Golebiowski, Piotr Czauderna
Department of Surgery and Urology for Children and Adolescents, Medical University of Gdansk, Gdansk, Poland

15:47-15:50 (P010) **DIAGNOSTIC LAPAROSCOPY IN TEENAGE GIRLS WITH MUNCHAUSEN SYNDROME – EARLY EXPERIENCE IN AN EASTERN EUROPEAN CENTRE.**
Iulia Stratciuc-Ciongrandi¹,², Bogdan Savu¹,², Ana-Maria Scurtu², Elena Tarca¹,²
¹Gr.T. Popa University of Medicine & Pharmacy, Iasi, Romania
²Stanta Maria Children Hospital, Iasi, Romania
15:50-15:53 (P011) PEDIATRIC LAPAROSCOPIC APPENDECTOMY. INITIAL EXPERIENCE IN AN EAST EUROPEAN CENTRE.
Bogdan Savu¹ ², Iulia Straticiuc-Ciongradi¹ ², Ana-Maria Scurtu², Adrian Rosca², Elena Hanganu¹ ²
¹Gr. T. Popa University of Medicine & Pharmacy, Iasi, Romania
²Sfanta Maria University children Hospital, Iasi, Romania

16:00-16:30 Coffee Break & Exhibition

16:30-17:36 SESSION II THORAX: Podevin (FRA), Di Benedetto (ITA)

16:30-16:40 (OP011) IS THORACOSCOPY FOR MEDIASTINAL TUMOURS IN CHILDREN EFFICIENT AND SAFE?
Majid Alkhamis¹, François Varlet², Manuel Lopez², Hélène Martelli¹, Philippe Montupet¹, Guérin Florent¹
¹CHU Bicêtre, Le Kremlin Bicêtre, France
²Hôpital Nord, St-Etienne, France

16:40-16:47 (VP012) OUR EXPERIENCE OF UNILATERAL THORACOSCOPIC THYMECTOMY IN CHILDREN ALLOWED US TO SIMPLIFY THE PROCEDURE OF PECTUS EXCAVATUM CORRECTION.
Aurore BOUTY, Marie DABILLY, Frederic LAVRAND, Pierre VERGNES, Eric DOBREMEZ
CHU Bordeaux, Bordeaux, France

16:47-16:54 (VP013) NEW ENDOSCOPIC SURGICAL TECHNIQUE FOR CORRECTION OF PECTUS CARINATUM IN CHILDREN AND ADOLESCENTS.
Raimundo Beltrà, David Pérez, José Ramón Cano, Gara Torrent
Complejo Hospitalario Universitario Insular Materno-Infantil. Paediatric and Thoracic Surgery, Las Palmas de Gran Canaria, Spain

16:54-17:01 (OP014) CCAM AND SEQUESTRATION: TWO STANDPOINTS FOR A SINGLE CONDITION.
Lucile Fievet¹, Xavier-Benoit D"Journo³, Benoit Dubus¹, Jean-Michel Guys³, Pascal Thomas³, Thierry Merrot¹, Pascal De Lagausie²
¹Department of Pediatric Surgery, North hospital, Marseille, France
²Department of Pediatric Surgery, Hôpital Timone Enfant, Marseille, France
³Department of Thoracic Surgery, North hospital, Marseille, France

17:01-17:08 (OP015) MINIMAL INVASIVE LUNG-SPARING RESECTIONS BELOW 1 YEAR OF AGE.
Sabine Vasseur Maurer, Anthony de Buys Roessingh, Olivier Reinberg
CHUV, chirurgie pédiatrique, Lausanne, Switzerland

17:08-17:15 (OP016) COMPARISON OF CURATIVE EFFECT BETWEEN VATS AND RIBS BED DRAINAGE IN THE TREATMENT OF PEDIATRIC PLEURAL EMPYEMA.
Hong bo li, yong gang li, chun wu, zheng xia pan, gang wang
Department of Cardiothoracic Surgery, Children's Hospital of Chongqing Medical University, Chongqing, China

17:15-17:22 (OP017) PRELIMINARY STUDY OF EFFICACY FOR DYNAMIC COMPRESSION SYSTEM IN THE CORRECTION OF PECTUS CARINATUM.
Manuel Lopez², Olivier Tiffet², Eduardo Perez¹, Arnaud Patoir², Aurelien Villard³, François Varlet¹
¹Department of Pediatric Surgery.University Hospital of Saint Etienne, Saint Etienne, France
²Department of Adult Thoracic Surgery. University Hospital of Saint Etienne, Saint Etienne, France
³Department of Physical Therapy. University Hospital of Saint Etienne, Saint Etienne, France
17:22-17:29 (OP018) IMPLANTATION OF A NUSS BAR UNDER THORACOSCOPIC GUIDANCE IN CHILDREN PATIENTS WITH PECTUS EXCAVATUM.
Vladimir Cingel, Jozef Babala, Lenka Zábojníková, Michal Petrík
Dpt. of paediatric surgery University Children’s hospital, Bratislava, Slovakia

17:29-17:36 (OP019) THORACOSCOPIC REPAIR OF ESOPHAGEAL ATRESIA: EXPERIENCE OF A SINGLE CENTRE.
SALVATORE FABIO CHIARENZA, LORENZO COSTA, ELISA ZOLPI, ALESSANDRO CARABAICH, ELENA CARRETTI
DEPT PED SURGERY, VICENZA, Italy

17:36-18:06 ESPES Richard Wolf Lecture I: Hepatobiliary Surgery: The Minimal Invasive Approach
Prof. Alexander Razumovsky, Moscow (RUS);
Chairman: Naved Alizai (UK)

18:15-18:45 GECI’s General Assembly

19:30-23:00 ESPES/GECI/LOCAL ORGANIZERS Reception
FRIDAY, 27th SEPTEMBER 2013

08:00-09:00 Registration

09:00-10:37 SESSION III UROLOGY: Beltrà (ESP), Philippe (LX)

09:00-09:07 (VP020) ENDOSCOPIC COLPOSUSPENSION FOR PERSISTENT STRESS INCONTINENCE IN CHILDREN: DESCRIPTION OF THE TECHNIQUE AND THE PRIMARY RESULTS.
Rafal Chrzan¹, Aart Klijn², Pieter Dik², Caroline Kuijper¹, Tom de Jong¹,²
¹Department of Paediatric Urology AMC, Amsterdam, The Netherlands
²Department of Paediatric Urology UMC, Utrecht, The Netherlands

09:07-09:14 (VP021) VESICOSCOPIC BLADDER NECK PLASTY FOR URINARY INCONTINENCE IN CHILDREN.
Rafal Chrzan¹, Pieter Dik², Aart Klijn², Caroline Kuijper¹, Tom de Jong¹,²
¹Department of Paediatric Urology, Amsterdam, The Netherlands
²Department of Paediatric Urology, Utrecht, The Netherlands

09:14-09:21 (OP022) EARLY RESULTS OF DEXELL FOR THE ENDOSCOPIC TREATMENT OF VESICOURETERAL REFLUX: SINGLE CENTRE EXPERIENCE.
Sahned Jaafar, Mohammed Hazim Aldabagh
University of Duhok, Duhok, Iraq

09:21-09:28 (OP023) THE MANAGEMENT OF URACHAL REMNANTS IN PEDIATRIC AGE GROUP: A SINGLE CENTRE EXPERIENCE.
Mirko Bertozzi¹, Elisa Magrini¹, Sara Riccioni², Antonino Appignani¹
¹S.C. di Clinica Chirurgica Pediatrica - Ospedale S. Maria della Misericordia - Università degli Studi di Perugia, Perugia, Italy
²Section of Radiology - Ospedale S. Maria della Misericordia - University of Perugia, Perugia, Italy

09:28-09:38 (OP024) A MODIFIED PNEUMOVESICAL GLENN-ANDERSON PROCEDURE FOR URETERAL REIMPLANTATION IN PEDIATRIC PATIENTS.
Dawei He, Xing Liu, Deying Zhang, Yi Hua, Peng Liu, Peng Lu, Tao Lin, Guanghui Wei
Children’s Hospital of Chongqing Medical University, Chongqing, China
09:38-09:45 (OP025) COMPARING DIFFERENT PELVIS URINE DRAINAGES FOR LAPAROSCOPIC PYELOPLASTY IN CHILDREN.
Xing Liu, Da-wei He, Deying Zhang, Junhong Liu, Yi Hua, Feng Liu, Xuliang Li, Tao Lin, Guanghui Wei
Department of Urology, Children’s Hospital of Chongqing Medical University, Chongqing, China

09:45-09:52 (VP026) LAPAROSCOPIC REVISION OF MITROFANOFF PROCEDURE DUE TO URINARY LEAKAGE.
Baran Tokar
Eskisehir OGU Medical School, Department of Pediatric Surgery, Division of Pediatric Urology, Eskisehir, Turkey

09:52-09:59 (OP027) PARTIAL NEPHROURETERECTOMY IN DUPLEX RENAL SYSTEM: RETROPERITONEAL LAPAROSCOPIC APPROACH IN CHILDREN.
Francesco Molinaro, Giovanni Di Maggio, Rossella Angotti, Anna Lavinia Bulotta, Elisa Cerchia, Mario Messina
The Section of Paediatric Surgery, Department of Medical Sciences, Surgery and Neuroscience, University of Siena, Siena, Italy

09:59-10:06 (OP028) LAPAROSCOPIC PLACEMENT OF PERITONEAL DIALYSIS CATHETER IN CHILDREN: A MODIFIED TECHNIQUE.
JING QIN TAY1, AZAD NAJMALDIN2
1Leeds Teaching Hospitals NHS Trust, Leeds, UK
2Leeds Teaching Hospitals NHS Trust, Leeds, UK

10:06-10:13 (OP029) SILS AND CONVENTIONAL LAPAROSCOPIC TREATMENT OF VARICOCELE IN ADOLESCENTS. COMPARISON BETWEEN TWO TECHNIQUES.
Antonio Marte, Lucia Pintozzi, Silvia Cavaiuolo, Micaela Borrelli, Pio Parmeggiani
Pediatric Surgery - University of Naples, Naples, Italy

10:13-10:20 (OP030) UPJ OBSTRUCTION AD LOWER POLE CROSSING VESSELS: FURTHER EXPERIENCE WITH THE LAPAROSCOPIC VASCULAR HITCH.
Villemagne Thierry1, Fourcade Laurent3, Szwarc Caroline1, Camby Caroline2, Lardy Hubert1, Leclair Marc-David1
1CHRU Tours, Tours, France, 2CHU Nantes, Nantes, France, 3CHU Limoges, Limoges, France

10:20-10:30:30 (OP031) LAPAROSCOPIC RETROPERITONEAL RENAL SURGERY IN CHILDREN: AN ALTERNATIVE APPROACH.
Mohamed R Abdulla, Yazan S Khalid, Thomas P Cundy, Azad S Najmaldin
Leeds Teaching Hospitals NHS Trust, Leeds, UK

10:30-10:37 (OP032) LAPAROSCOPIC HEMINEPHROURETERECTOMY IN A DUPLEX KIDNEY.
Dariusz Patkowski, Marcin Polok, Sylwester Gerus, Natalia Piotrowska, Marcin Rasiewicz
Departments of Pediatric Surgery and Urology, Medical University of Wroclaw, Wroclaw, Poland

10:37-11:07 KEYNOTE LECTURE II: Aspiring to Authorship
Prof. Mark Davenport, London (UK)
Chairman: Pof. Zacharias Zachariou (CH)

11:07-11:30 Coffee Break & Exhibition
11:30-13:00  SESSION IV GI 2: Elbaz (FRA), Cingel (SLOV)

Beatrice Randi, Michele Libri, Mirella Mogiatti, Noemi Cantone, Ciro Andolfi, Mario Lima
Pediatric Surgery S. Orsola-Malpighi, Bologna, Italy

11:37-11:44 (OP034) THE ROLE OF LAPAROSCOPY IN THE MANAGEMENT AND TREATMENT OF ACUTE ABDOMEN IN PEDIATRIC PATIENTS.
Tommaso Gargano, Giovanni Ruggeri, Michela Maffi, Sara Pellegrinelli, Veronica Carlini, Mario Lima
Pediatric Surgery S. Orsola-Malpighi, Bologna, Italy

11:44-11:54 (OP035) TOTAL LAPAROSCOPIC APPROACH FOR CHOLEDOCHO LITHIASIS IS DOING AS WELL AS THE SHINCEROTOMY.
Benedicte Boimond Aulagne, Annabel Paye Jaouen, Souhayl Dahmani, Guilaine Ithier, Alaa El Ghoneimi, Arnaud Bonnard
Robert Debré Children University Hospital, Paris, France

11:54-12:04 (OP036) THORACOSCOPY IN ESOPHAGEAL ATRESIA WITH DISTAL FISTULA: OUR EXPERIENCE.
Araceli García Vázquez, Indalecio Cano Novillo, María López Díaz, Cecilia Moreno Zegarra, Sara Fuentes Carretero, Rocio Morante Valverde, Andres Gómez Fraile
Hospital 12 de Octubre, Madrid, Spain

12:04-12:11 (VP037) GASTRIC SLEEVE - SURGICAL TREATMENT FOR MORBIDLY OBESE TEENAGERS.
Rubin Munteanu1,2, Isabela Draghici1,2, Clarisa Gidea2, Octav Gingham1,2, Razvan Iosifescu1,2, Danut Ciocan2, Anca Ichiman-Rusu2, Mihai Ionescu2, Liviu Draghici1,2
1 “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania
2 “Sf. Ioan” Emergency Hospital, Bucharest, Romania

12:11-12:18 (OP038) THE SHEFFIELD TRAINING EDUCATION AND EVALUATION IN LAPAROSCOPIC CHOLECYSTECTOMY (STEELC): A PROGRAMME FOR ATTAINING COMPETENCE.
Giampiero Soccorso, Eleojo Achimugu, Richard Lindley, Sean Marven
Sheffield Children's Hospital NHS Trust, Sheffield, UK

12:18-12:25 (OP039) LAPAROSCOPIC CHOLECYSTECTOMY: IS THE EPIDEMIOLOGIC PENDULUM SHIFTING?
Alireza Basharkhah, Christine Robert, Amulya Saxena
Department of Pediatric- and Adolescent Surgery, Graz, Austria

12:25-12:32 (OP040) ENDOSCOPIC SUBMUCOSAL DISSECTION: THE FIRST PEDIATRIC APPLICATION OF AN EVOLVING ENDOSCOPIC SURGICAL TECHNIQUE.
James Wall, William Berquist, Craig Albanese
Stanford University, Palo Alto, California, USA

12:32-12:39 (VP041) COMBINED LAPAROSCOPIC-ENDOSCOPIC GASTRIC POLYPECTOMY.
Radoica Jokic, Jelena Antic, Mirjana Pesut Stojic, Nenad Zakula, Velicko Trajkovic
Clinic of pediatric surgery, Novisad, Vojvodina, Serbia

12:39-12:46 (OP042) CARDIAC ANOMALIES IN TERM AND PRETERM INFANTS - A REASONABLE CONTRAINDICATION TO LAPAROSCOPIC SURGERY?
Christine Burgmeier1,2, Felix Schier1
1 Department of Pediatric Surgery, University Medical Center Mainz, Mainz, Germany
2 Department of General and Pediatric Surgery, University Medical Center Ulm, Ulm, Germany
12:46-12:53 (OP043) IMMEDIATE PREOPERATIVE SPLEEN EMBOLISATION MAKES LAPAROSCOPIC SPLENECTOMY A SAFER PROCEDURE.
Erwin Van Der Veken, Marc Laureys, Chantal Leminaux, Luisa Divano, Henri Steyaert
Queen Fabiola Children's University Hospital, Brussels, Belgium

12:53-13:00 (OP044) ROBOTIC-ASSISTED LAPAROSCOPIC CHOLECYSTECTOMY IN PEDIATRICS: INITIAL EXPERIENCE.
Luigi Avolio, Piero Romano, Ghassan Nakib, Alessandro Raffaele, Mario Fusillo, Gloria Pelizzo
Dpt of Pediatric Surgery, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

13:00-14:00 Lunch & Exhibition

14:00-14:00 POSTER II UROLOGY: Breaud (FRA), Antoniou (GRE)

14:00-14:03 (P012) LAPAROSCOPIC REPAIR OF TRAUMATIC BLADDER PERFORATION.
Burak Tander¹, Cetin Karadag², Basak Erginel², Dilek Demirel¹, Unal Bicakci¹, Mithat Gunaydin¹, Taner Kamaci², Nihat Sever², Ferit Bernay¹, Ali Ihsan Dokucu¹
¹Ondokuz Mayis University, Department of Paediatric Surgery, Samsun, Turkey
²Sisli Etfal Research&Education Hospital, Department of Paediatric Surgery, Istanbul, Turkey

14:03-14:06 (P013) THE SUTURE LASSO - EXTENDING THE USE OF A DIAGNOSTIC CYSTOSCOPE.
Hawkar Kak-Ahmed
Great Ormond Street Hospital , London, UK

14:06-14:09 (P014) LAPAROSCOPIC MANAGEMENT OF NONPALPABLE TESTES: WHICH METHOD TO BE CHOSEN?
Unal Bicakci, Mithat Gunaydin, Burak Tander, Riza Rizalar, Ender Ariturk, Ferit Bernay
Ondokuz Mayis University, Department of Paediatric Surgery, Samsun, Turkey

14:09-14:12 (P015) LAPAROSCOPIC INGUINAL HERNIA REPAIR.
Sisli Etfal Education and Research Hospital, Istanbul, Turkey

14:12-14:15 (P016) THE POSTERIOR URETHRAL VALVES: ABOUT 50 CASES.
Souhem Touabti, Souallii Zineddine
Hospital University, Setif, Algeria

14:15-14:18 (P017) LAPAROSCOPIC PALOMO TECHNIQUE: EXPERIENCE OF A SINGLE CENTRE.
Maria Grazia Scuderi, Silvia Scarvaglieri, Roberta Iacona, Vincenzo Di Benedetto
Pediatric surgery unit university of Catania, Catania, Italy

14:18-14:21 (P018) ISOLATED TUBAL ABNORMALITIES IN CHILDREN.
Piero Romano, Luigi Avolio, Alessandro Raffaele, Ilaria Goruppi, Ghassan Nakib, Gloria Pelizzo
Dpt of Pediatric Surgery, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

14:21-14:24 (P019) RESULTS OF TREATMENT USING THE FOWLER STEPHENS ORCHIDOPEXY METHOD IN CHILDREN WITH DIAGNOSED UNDESCENDED TESTIS IN OUR CLINIC.
Michal Pulinski, Wojciech Choinski
The Department of Paediatric Clinical Surgery at the University of Warmia and Mazury, Olsztyn, Poland
14:24-14:27 (P020) POLYORCHIDISM MAY NOT BE AS RARE AS THOUGHT: HOW VALUABLE IS A COMBINED LAPAROSCOPIC AND INGUINAL EXPLORATION IN A NONPALPABLE TESTIS?
Baran Tokar¹, Mehmet Ciftci¹, Enver Simsek², M. Surhan Arda¹, Cigdem Arslan¹
¹Eskisehir OGU Medical School, Department of Pediatric Surgery, Section of Pediatric Urology, Eskisehir, Turkey
²Eskisehir OGU Medical School, Department of Pediatrics, Section of Pediatric Endocrinology, Eskisehir, Turkey

14:27-14:30 (P021) POSTERIOR INTRAURETHRAL CYST; AN UNUSUAL CAUSE OF OBSTRUCTION OF URINARY TRACT IN CHILDREN.
Dritan Alushan, Amarold Balliu
University Hospital Mother Teresa, Tirana, Albania

14:30-14:50 President’s Address - Azad Najmaldin

14:50-16:00 SESSION V Miscellaneous: Patkowski (POL), De Agustin (ESP)

14:50-14:57 (VP045) LAPAROSCOPIC APPROACH OF HEPATIC HYDATID DOUBLE CYST: INDICATIONS AND LIMITATIONS.
Isabela Draghiçi¹,², Liviu Draghiçi¹,², Maria Popescu²
¹“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania
²Emergency Hospital for Children "Maria Sklodowska Curie", Bucharest, Romania
³Emergency Hospital "St. John", Bucharest, Romania

Boris Duchaj, Igor Béder, Pavol Omaník, Rastislav Králik, Vladimir Cingel
Children’s University Hospital, Department of Paediatric Surgery, Bratislava, Slovakia

15:04-15:14 (OP047) ESPES STRUCTURED GUIDELINES FOR A MIS TRAINING PROGRAM FOR PEDIATRIC SURGEONS.
Ciro Esposito¹, Fabio Chiarenza², Marianna Iaquinto¹, Simona Gerocarni Nappo³, Antonio Marte⁴, Maria Escolino¹, Francesca Alichio¹, Vincenzo Di Benedetto⁵, Alessandro Settimi¹
¹University of Naples Federico II, Naples, Italy
²San Bortolo Hospital, Vicenza, Italy
³Bambin Gesù Hospital, Rome, Italy
⁴Second University of Naples, Naples, Italy
⁵University of Catania, Catania, Italy

15:14-15:21 (OP048) ASSESSMENT OF ROBOTIC SURGERY IN SMALL CHILDREN.
Quentin Balouhey, Véronique Carcauzon-couvrat, Daniel Bérenguer, Sophie Derbal, Marion Beurdeley, Asma Grimaudo, Bernard Longis, Laurent Fourcade
Department of Pediatric Surgery, Limoges, France

15:21-15:28 (OP049) PRELIMINARY EXPERIENCE IN SINGLE INCISION LAPAROSCOPIC SURGERY.
Guillaume Podevin¹, Cynthia Garignon², Francois Bastard¹, Emilie Eyssartier¹, Francoise Schmitt¹
¹Pediatric Surgery Department, CHU, Angers, France
²Pediatric Surgery Department, St Brieuc, France

15:28-15:35 (OP050) SURGICAL TREATMENT OF SPONTANEOUS PNEUMOTHORAX IN ADOLESCENTS.
Pavol Omanik, Igor Beder, Rastislav Králik, Vladimir Cingel
Paediatric Surgery Department, Children’s University Hospital, Bratislava, Slovakia

15:35-15:42 (OP051) VIDEO-THORACOSCOPIC SURGERY FOR ENCIRCLING AND SYMPTOMATIC AORTIC ARCH ANOMALIES IN CHILDREN: A RETROSPECTIVE COMPARATIVE STUDY VERSUS THORACOTOMY.
15:42-15:52 (OP052) LAPAROSCOPIC ADRENALECTOMY IN CHILDREN.
Ahmet Celik, Zafer Dokumcu, Emre Divarci, Orkan Ergun
Ege University Faculty of Medicine, Department of Pediatric Surgery, Izmir, Turkey

15:52-15:59 (VP053) INTRACORPOREAL KNOTTING SUPPORT, EXPERIMENTAL STUDY - PART II.
Jozef Babala, Vladimir Cingel, Miroslava Funakova
University Children’s Hospital, Bratislava, Slovakia

16:00-16:30 Coffee Break & Exhibition

16:30-17:00 KEYNOTE LECTURE III: Esophageal replacement in children
Prof. Olivier Reinberg Lausanne (CH)
Chairman: Dr Philippe Montupet (FR)

17:00-18:00 Annual General Meeting ESPES Members ONLY

19:30-23:00 Annual Dinner “ticket holders only”

SATURDAY, 28th SEPTEMBER 2013

08:00-09:00 Registration

09:00-10:30 SESSION VI GI 3: Appignani (ITA), Haddad (UK)

09:00-09:10 (OP054) MAJOR COMPLICATIONS IN LAPAROSCOPIC SURGERY - AN OBJECTIVE APPROACH.
Liviu Draghici1, Clarisa Gidea1, Isabela Draghici2, Rubin Munteanu1, Razvan Iosifescu4, Octav Ginghina5, Danut Cicoc5, Anca Ichiman1, Maria Popescu3
1Sf. Ioan Emergency Clinical Hospital, Bucharest, Romania
2University Hospital of Antwerp, Edegem, Belgium
3Maria Sklodowska Curie Children’s Hospital, Bucharest, Romania
4Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

09:10-09:20 (OP055) REDO LAPAROSCOPIC FUNDOPPLICATION: INCIDENCE AND CONTRIBUTING FACTORS.
Catherine Lu6, Nadeem Haider1, Kiki Maoate1, Spencer W Beasley1
1Christchurch Hospital, Christchurch, New Zealand
2University of Otago, Canterbury, New Zealand
EVALUATION OF THE SINGLE PORT TRANS-UMBILICAL LAPAROSCOPIC ASSISTED APPENDECTOMY FOR NON-COMPLICATED AND PERFORATED APPENDICITIS IN CHILDREN.
Alexis P Arnaud, Juliette Hascoet, Audrey Guinot, Edouard Habonimana, Olivier Azzis, Benjamin Fremd
Department of General Paediatric Surgery, University Hospital, Rennes, France

LAPT IN HIRSCHSPRUNG'S DISEASE: A SAFE, FAST-TRACK PROCEDURE.
Claudio Vella, Luciano Maestri, Milena Meroni, Claudia Filisetti, Davide Inverardi, Giovanna Riccipetiton
V Buzzi Children's Hospital Pediatric Surgery Department, Milano, Italy

SILS PROCEDURES IN PAEDIATRIC SURGERY – OUR EXPERIENCES IN 109 PATIENTS.
Lenka Zabojnikova, Vladimir Cingel, Michal Petrik, Jozef Babala
Dept. of Paediatric surgery, University Children’s hospital, Bratislava, Slovakia

COMPARATIVE ANALYSIS BETWEEN “PULL” AND “PUSH” TECHNIQUE IN PERCUTANEOUS ENDOSCOPIC GASTROSTOMIES.
Juan C. de Agustín-Asensio, Diego Aspiazu-Salinas, Antonio Gracia-Velilla
University Hospitals Virgen del Rocio, Seville, Spain

A TECHNIQUE FOR MINIMALLY INVASIVE GASTROSTOMY INSERTION IN CHILDREN USING AN INTRACORPOREAL PURSE-STRING ANCHORING HITCH SUTURE.
Oliver Jackson¹, Thomas Cundy², Azad Najmaldin¹
¹Leeds General Infirmary, Leeds, UK
²The Hamlyn Centre, Imperial College London, London, UK

LAPAROSCOPIC NISSEN FUNDOPLICATION: LONG-TERM RESULTS AND EVALUATION OF QUALITY OF LIFE WITH B-ROME III QUESTIONNAIRE.
Giovanni Casadio, Laura Lombardi, Francesca Caravaggi, Bruno Groppi, Carmine Del Rossi
Azienda Ospedaliero-Universitaria di Parma, Parma, Italy

NEAR-FATAL VENOUS AIR EMBOLISM DURING DIAGNOSTIC COLONOSCOPY IN AN INFANT WITH COMPLEX ANORECTAL MALFORMATION—CASE REPORT AND LITERATURE REVIEW.
Stefan Gfroerer, Ulf Abdel-Rahman, Henning Fiegel, Udo Rolle
University Hospital Frankfurt, Dept. of Paediatric Surgery, Frankfurt am Main, Germany

PAEDIATRIC ROBOTIC HEPATOBLIARY SURGERY: THE FIRST 5 YEARS EXPERIENCE FROM A SINGLE CENTRE.
Michael Dawrant, Azad Najmaldin, Naved Alizai
Leeds Children’s Hospital, Leeds, UK

MINIMAL INVASIVE SPLENECTOMY, A JOURNEY FROM TRADITIONAL LAPAROSCOPY TO SILS. INITIAL CASE SERIES REVIEW.
Mohamed Shoukry¹,², Hesham Elagami², Syed Sham Shad², Munther Haddad¹,²
¹Chelsea and Westminster Hospital, London, UK
²St. Mary’s Hospital, London, UK

10:30-11:00 Coffee Break & Exhibition
11:00-11:33 POSTER III Miscellaneous: Marven (UK), Tokar (TUR)

11:00-11:03 (P022) A TRAINING MODEL IN THORACOSCOPIC SURGERY FOR ESOPHAGEAL ATRESIA.
Hossein ALLAL
CHU Lapeyronie Structure de Chirurgie Viscérale Pédiatrique, Montpellier, France

11:03-11:06 (P023) TEACHING PAEDIATRIC SURGERY USING MEDICAL SIMULATION: CURRENT SITUATION IN FRANCE IN 2013.
Emilie Eyssartier¹, Jean Bréaud², Hubert Lardy³, Jérome Berton¹, Jean-Claude Granry¹,
Guillaume Podevin¹
¹CHU Angers, Angers, France
²Faculté de médecine, Nice, France
³CHRU de Tours, Tours, France

11:06-11:09 (P024) LAPAROSCOPIC HERNIORSRHAPHY IN CHILDREN WITH ACUTE INFLAMMATORY DISEASES OF THE ABDOMINAL CAVITY.
Roman Ignatyev¹, Saidkhassan Bataev¹,², Zoricto Mitiupov¹,³, Abdumanap Alkasov³, Adlan Dadaev²,
Sultan Ayskhanov², Ali Ferzouly², Ekaterina Ekimovskaya³
¹Central Clinical Hospital of the President of Russian Federation, Moscow, Russia
²Plastic and reconstruction pediatric surgery unit of the RAMS and SI RAS, Moscow, Russia
³Russian State Medical University, Moscow, Russia

11:09-11:12 (P025) LAPAROSCOPIC AND THORACOSCOPIC SURGERY FOR SELECTIVE DIAPHRAGMATIC CONGENITAL DEFECTS.
Andrea Volpe, Paola Midrio, Francesca Grandi, Piergiorgio Gamba
Pediatric Surgery - University of Padova, Padova, Italy

11:12-11:15 (P026) THORACOSCOPIC INJECTION OF FIBRIN SEALANTS IN TWO SYNDROMIC PATIENTS.
Enrico La Pergola, Claudia Luzzatto, Paola Midrio, Piergiorgio Gamba
Pediatric Surgery - University of Padova, Padova, Italy

11:15-11:18 (P027) POST OPERATIVE CHEST X RAY AFTER THORACOSCOPIC RESECTION FOR PULMONARY MALFORMATION: USELESS?
Arnaud Bonnard, Ahmed Kheniche, Marie Noelle Lebrás, Dominique Berrebi, Alaa El Ghoneimi
Robert Debré Children University Hospital Paris, Paris, France

11:18-11:21 (P028) ENDOSCOPIC MANAGEMENT OF RECURRENT TRACHEOESOPHAGEAL FISTULA WITH TRICHLOROACETIC ACID CHEMOCAUTERIZATION: A PRELIMINARY REPORT.
Manuel Lopez, Jean Michel Prades, Francois Varlet
Department of Pediatric Surgery, Saint Etienne, France

11:21-11:24 (P029) PUTATIVE CRITERIA FOR PREDICTING SPONTANEOUS REGRESSION OF PRENATALLY DIAGNOSED THORACO-ABDOMINAL CYSTIC LESIONS.
Jean François Lecompte, Geraldine Hery, Guillaume Gorincour, Nicole Philip, Pascal de Lagausie
Hôpital Timone enfant, Marseille, France
11:24-11:27 (P030) **LAPAROSCOPIC SPLENECTOMY FOR TUMOR IN CHILDREN: REPORT OF AN EXCEPTIONAL ETIOLOGY. DO YOU KNOW SANT?**
Christian PIOLAT¹, Yohann ROBERT¹, Ionella NECHIFOR¹, Hervé TESTARD¹, Blandine FABRE¹, Marie PARRENS², Jérôme DURET¹, Corinne ALLA¹, Dominique PLANTAZ¹
¹Hôpital Couple Enfant, CHU de Grenoble, France
²Groupe Hospitalier Haut Lévêque, CHU de Bordeaux, France

11:27-11:30 (P031) **TECHNICAL TRICK FOR DIAPHRAGMATIC PLICATION IN CONGENITAL DIAPHRAGMATIC EVENTRATIONS: THE CLAMP.**
Jean François Lecompte, Geraldine Hery, Pascal de Lagausie
Hôpital timone, Marseille, France

11:30-11:33 (P032) **THORACOSCOPIC MANAGEMENT OF CONGENITAL DIAPHRAGMATIC HERNIA: SINGLE CENTER EXPERIENCE.**
Antoine Liné, Francis Lefebvre, Aurélien Binet, Caroline François-Fiquet, Marie-Laurence Poli-Mérol
Department of Pediatric Surgery, American Memorial Hospital, Reims, France

11:33-12:30 **ROUND TABLE:** Minimal Invasive Surgery for Thoracic Congenital Malformation.
   Allal (FRA), De Lagausie (FRA), Fourcade (FRA), Lardy (FRA), Podevin (FRA)

12:30-12:40 **ESPES Executive Board Prizes for the:**
   “Best Presentation – 300 €” & “Best Idea – 500 €”
Chairman: Pof. Amulya Saxena (Austria)

12:40-12:50 **CLOSING REMARKS:** Czauderna (POL)
We present the case of a ten year old boy with operated high anorectal malformation in need for antegrade continence enemas. After years of using a percutaneous Chait button cecostomy, he requested conversion to a tubeless access. He had also underwent a Ladd’s procedure with appendectomy for malrotation associated mid-gut volvulus at 8 month of age. After several years using a Chait’s button, he requested a continent stoma.

A conduit was fashioned laparoscopically, using a 14Fr peel-away vascular introducer placed in the umbilicus to calibrate a tubularized caecal flap made with one application of a 45mm endostapler. A 12 Fr Foley catheter was then inserted through the sheat and left in place for 2 weeks. A “fundoplication” of the ceacum was added as an anti-reflux measure.

The child was discharged the next day, and enemas restarted at 48 hours.

Despite the need for a stoma revision (stenosis) and a rare minor leak, the child and his family are very satisfied.
LAPAROSCOPIC PARTIAL SPLENECTOMY: IS IT POSSIBLE? WHAT IS IT FOR?
Isabelle LACREUSE, François BECMEUR, Raphael MOOG, Clémence KLIPFEL, Valérie FLAUM, Anne SCHNEIDER
Hôpitaux Universitaires de Strasbourg, Strasbourg, France

Context: The risk of severe infections for youngest children and the risk of thromboembolic events for oldest children after total splenectomy, make a partial splenectomy a good indication when possible.

Aim: To review the indications and to analyse our results after laparoscopic partial splenectomy

Patients and Methods: The data of all cases of LPS during the 15 last years were reviewed

Results: In the same period we performed 77 laparoscopic total splenectomies mostly for haematological diseases. Seventeen laparoscopic partial splenectomies were performed in 8 boys and 9 girls aged from 5 to 14 years-old (median: 9). Five LPS were offered for spherocytosis and one for hemoglobinosis E. A subtotal splenectomy was done. For these patients, the mean follow-up is 6.5 years (from 2 to 10 years). At the moment, any patients needs we complete splenectomy. Two LPS were done for an angioma. Nine LPS were done for a splenic cyst ranked from 10 to 17 cm (median: 12). Mean operative time was 110 minutes. There were no conversion. Blood loss was under 2g Hb, no transfusion was necessary. Mean hospital saty was 8 days, in order to overcome any secondary bleeding.

Discussion: The procedure depends on the indication: in case of splenic cyst it is necessary to remove all the cyst and the pericyst; in case of splenic tumor, the aim of the surgery is to remove the part of the spleen which contains the tumor; in case of haematological disease a subtotal splenectomy (70% or more) is required. Otherwise insufficient reduction in hemolytic rate makes the partial splenectomy useless and the risk of cholelithiasis remains.

Conclusion: LPS is feasible and safe. The aim of this surgery is significantly different according to the indication.
Robotic assistance in minimally invasive surgery for infants and toddlers: is age a limitation?

Thomas Cundy\textsuperscript{1}, Nicholas Gattas\textsuperscript{2}, Alan White\textsuperscript{2}, Azad Najmaldin\textsuperscript{0}
\textsuperscript{1}The Hamlyn Centre, Imperial College London, London, UK, \textsuperscript{2}Leeds General Infirmary, Leeds, UK

**Aims:** Amongst the variable age and presentation of children requiring anti-reflux surgery, there is a distinct sub-population of young children in their first years of life who often present with complex related or co-morbid illness. Higher complication rates have previously been reported with conventional laparoscopic fundoplication in infants compared to older children. The merits of a robot-assisted approach might benefit clinical and technical challenges in this setting. This study investigates safety and feasibility of robot-assisted fundoplication in infants and toddlers.

**Methods:** All patients were included who underwent robot-assisted fundoplication between March 2006 and March 2012 performed by a single surgeon (ASN). Perioperative data was prospectively recorded and post-operative follow up data obtained by retrospective review. Infants and toddlers (< 2 years old) were categorized into a sub-group for independent analysis and also comparison with older children (2 - 18 years old) using either Pearson's chi-squared or Wilcoxon-Mann-Whitney tests.

**Results:** A total of 51 patients were included, comprising 20 infants and toddlers (Group 1) and 31 older children (Group 2). The mean age of respective groups was 1.4 years and 11.7 years. The youngest patient was 1 month old, and smallest weighed 6.4 kg. No cases required conversion. Median follow up was 33 months (range 1 – 75 months). Overall, no significant difference was found between Groups 1 and 2 for operating times, conversions, complication rates and re-do procedure rates.

**Conclusion:** While laparoscopic fundoplication is a relatively standard procedure in older children, degree of difficulty heightens as patient age and size decreases. In these circumstances of increased procedural complexity and confined operative domain, technical advantages of robot-assistance become more apparent and may play a potentially valuable clinical role. Safety and feasibility of robot-assisted fundoplication does not seem limited by age. Longer-term follow up data is needed to further support these findings.
Les malformations adénomatoïdes kystiques (CCAM) et les séquestrations pulmonaires (SP) sont les diagnostics évoqués en premier lieu lors de la découverte d'une malformation kystique du poumon en anténatal. Les duplications œsophagiennes sont des malformations congénitales rares et rarement évoquées dans ces circonstances. Elles représentent aussi un défi diagnostique et thérapeutique pour le clinicien en postnatal.

Nous présentons le cas d'un nourrisson, avec un diagnostic anténatal de kyste du poumon G fait à 30 SAG. Une CCAM était suspectée et le diagnostic différentiel évoquait alors aussi une SP ou un kyste bronchogénique. La naissance à terme est sans particularité et l'enfant n'a aucun symptôme respiratoire ou digestif. Les investigations radiologiques post-natales par CT, IRM et TOGD mettent en évidence une lésion kystique polylobée, comprimant fortement l'œsophage à son tiers distal, sans communication avec lui. Le diagnostic de duplication œsophagienne non communicante est retenu.

La position de la masse dans le médiastin postérieur gauche, au contact du cœur, rend son abord difficile par voie thoracique. C'est pourquoi, habitués à l'abord du médiastin par laparoscopie lors d'œsophagectomies, l'enfant bénéficie d'une résection de cette duplication par laparoscopie transhiatale à l'âge de 6 mois. Les suites opératoires immédiates et à long terme sont simples et l'histologie confirme le diagnostic.

**Conclusion** : L'intérêt de ce cas réside d'une part dans le diagnostic anténatal d'une duplication œsophagienne, mais surtout dans l'approche par laparoscopie transhiatale qui n'a pas été décrite chez l'enfant et qu'une fois chez l'adulte. Pourtant cette approche donne une large vision du médiastin inférieur et moyen et permet une dissection et une suture en toute sécurité.
LAPAROSCOPIC REPAIR OF MORGAGNI DIAPHRAGMATIC HERNIA IN CHILDREN: AN ORIGINAL TECHNIQUE (ABOUT 14 CASES)

Fouad ETAYEBI, Houda OUUBEJJA, Hicham ZERHOUNI, Mounir ERRAJI
Department of Paediatric Surgery, Children's Hospital of Rabat, Rabat, Morocco

Introduction: Morgagni diaphragmatic Hernia is an anterior midline defect of the sternal and costal parts of the diaphragm. It's considered the rarest form of diaphragmatic hernia, accounting for only 2-3% of all defect of the diaphragm.

Aim of study: to report our experience concerning the laparoscopic treatment of Morgagni diaphragmatic Hernia.

Material and methods: We present our procedure performed in 14 patients. The mean age of our patients is 4 years. The youngest patients have 2 years old.

Results: Only two ports are used: A 10mm port for the endoscope and a 3,5 mm port in the upper left quadrant of the abdomen. A "reverdin" needle, used in classical surgery, introduced via a subxyphoid incision (5mm) allow to charge the posterior edge of the diaphragmatic defect and to perform extracorporeal sutures.

No attempt was made to remove the sac in order to avoid injuries of the mediastinum. The mean operative time is 30 mm. Patients were discharged in 48 H. One recurrence of the Hernia have been found and managed by laparoscopy. The mean follow up is about 8 years.

Discussion-conclusion: Morgagni diaphragmatic Hernia is usually asymptomatic and often discovered on incidental chest radiography. Most surgeon recommend surgical repair even in asymptomatic patients because of the risk of strangulation, gastric volvulus or cardiac tamponade. The repair of the defect can be safely and easily performed by a laparoscopic approach.
Type IV paraesophageal hernias are uncommon in children. They are defined by the presence of both the cardia and the fundus of the stomach displaced into the chest, and an additional organ (colon, pancreas etc) included in the hernia sac. They are associated with considerable morbidity and high risk of recurrence.

This video demonstrates the laparoscopic approach of a giant type IV congenital paraesophageal hernia in a 3-year-old girl, with attention to the critical steps of the procedure.

In our experience, and after a critical review of publications regarding both children and adults, we consider that the procedure should include resection of the hernia sac before firm closing of the crura, and also an antireflux procedure, in order to achieve easy positioning of the gastroesophageal junction in the abdominal cavity without tension and therefore prevent recurrence.
COMPLICATIONS AFTER PERCUTANEOUS ENDOSCOPIC GASTROSTOMY (PEG) IN CHILDREN

Ciro Esposito, Agnese Roberti, Erasmo Miele, Anna Maria Staiano, Maria Escolino, Marianna Iaquinto, Francesca Alicchio, Ida Giurin, Alessandro Settimi

University of Naples Federico II, Naples, Italy

Background: Percutaneous endoscopic gastrostomy (PEG) provides for enteral nutrition in children with feeding problems. PEG, however, is not without complications. The present study has the aim to identify the incidence of major and minor complications after PEG placement.

Materials and Methods: All patients receiving a PEG in the period 2008-2011 were reviewed. In a 4 years period we positioned 41 PEG in 41 patients with feeding problems. Their age range was variable between 1 and 16 years.

Results: Of the 41 patients 14.6% developed complications. In 2 cases (4.8%) there were major complications. In one case of gastro-colic fistula a redo surgery was performed that consisted in the fistula closure and a redo gastrostomy. This patient moved a legal action against the hospital. In the second case the child developed a pneumoperitoneum for a wrong position of the tube and also this patient was re-operated to position well the tube and to fix the stomach to the skin. In 4 cases (9.8%) there were 4 minor complications: 2 granulomas and 2 cutaneous orifice enlargement.

Conclusions: PEG placement is generally considered a minor and safe procedure. However, the incidence of complications after PEG placement, according to the literature reports, is variable between 10 and 20 %. In our series we report 5 % of major complications that required a redo surgery. It is important to write in the informed consent that complications after PEG placement are possible and sometimes a redo surgery is required. In one of our case a legal action was moved against the Hospital.
LAPAROSCOPIC CARDIOMYOTOMY FOR ACHALASIA IN CHILDREN

Alexander Razumovsky\textsuperscript{1,2}, Saidkhasan Bataev\textsuperscript{1,3}, Abdumanap Alkhasov\textsuperscript{1,2}, Zoricto Mitupov\textsuperscript{1,2}, Victor Rachkov\textsuperscript{2}, Roman Ignatyev\textsuperscript{2}, Ali Ferzouly\textsuperscript{3}, Ekaterina Ekimovskaya\textsuperscript{2}, Adlan Dadaev\textsuperscript{3}, Sultan Ayskhanov\textsuperscript{3}

\textsuperscript{1}Department of Filatov Children’s Hospital, Moscow, Russia, \textsuperscript{2}Faculty of Pediatric Surgery of Russian State Medical University, Moscow, Russia, \textsuperscript{3}Plastic and reconstruction pediatric surgery unit of the RAMS and SI RAS, Moscow, Russia

Background: Achalasia is rare in children. Recently, injection of botulinum toxin into the lower esophageal sphincter has been studied as an alternative to esophageal pneumatic dilatation or surgical myotomy as treatment for achalasia. In the current study we present our experience of the laparoscopic treatment for achalasia.

Material and methods: From 2004 to 2012 16 children from 4 to 15 years (mean 9 years) with achalasia of the esophagus were treated at The Filatov Children's Hospital (Moscow, Russia). All 16 children underwent a laparoscopic cardiomyotomy with gastropexy.

Results: Clinical evaluation, endoscopy and X-ray study showed good results of the operation in all 16 causes. No signs of GER were found during 24-hours pH study. In the long term follow up there were no symptoms of recurrent dysphagia and gastroesophageal reflux. We believe the Dor type of gastropexy to be an appropriate partial fundoplication after esophagocardio myotomy for achalasia treatment. In order to prevent a recurrence of dysphagia we advocate the technique of extended myotomy which has created good results in our study.

Conclusion: We suggest the laparoscopic cardiomyotomy combined with a gastropexy is the operation of choice for achalasia patients since it has all the advantages of minimally invasive approaches and gives the same good results as open procedures do.
Aims: to present a video highlighting the use of minimally invasive surgery in patients with complex and complicated anorectal malformations.

Methods: minimally invasive surgery was used for the treatment of 5 children with Congenital Short Colon and 4 children with Anorectal malformations complicated by previous unsuccessful surgery elsewhere. Three children of the latter group had the sigmoid colon pulled up to the right or left hypochondrium in a colostomy. Rectal mobilisation by laparoscopy greatly facilitated the surgical correction of the anomaly in all these patients without a large abdominal incision or extensive division of the Levator muscle. The perineal incision was made equal to the size of the rectal opening only. Colostomy closure was done after 6 weeks. No anal dilatation was required in any patient. The children with congenital short colon had a distal cologram through the ileostomy to check adequacy of the colonic tube before ileostomy closure.

Results: All nine patients had satisfactory recovery, 6 have undergone closure of the colostomy. The longest follow up is 18 months, stool frequency ranges between 3 and 8 per day, formed stools are passed. None of the children has soiling or perineal excoriation. MRI of the pelvis showed proper placement of the rectum in the sphincter muscle in all patients. Overall there is a higher degree of parental satisfaction with the procedure especially due to the absence of the requirement for anal dilatation.

Conclusions: Minimally invasive surgery offers the advantages of reduction in hospital stay, morbidity, less postoperative pain and also sometimes reduction in the number of surgical stages required to correct a complex or complicated Anorectal Malformation.
P001

INTRACORPOREAL KNOTTING OF APPENDICULAR BASE, AND APPENDIX RETRIEVAL. CAN WE BE MORE INNOVATIVE? Ahmad Vaqas Faruque MD, Saqib H Qazi MD, Aga Khan University Hospital, Karachi-Pakistan

Saqib Hamid Qazi, Ahmad Vaqas Faruque
Aga Khan University Hospital, Karachi / Sind, Pakistan

Laparoscopic appendectomy (LA) is one of the most common laparoscopic minimally invasive procedure in pediatric population. There is a routine practice to ligate the appendix base with endo-loop and remove appendix in endo-bag. In third world countries like Pakistan, where surgical cost is a major issue, we can decrease the surgical cost of this procedure by doing some innovations in this procedure.

Aim: Aim of the study is to show our results of Intracorporeal knotting of appendicular base and retrieval of appendix in laparoscopic pediatric surgery other than classical endo-loop & endo bag.

Material & method: A retrospective study was conducted at Aga khan university hospital, Karachi, Pakistan, in which we have included all cases who underwent LA. Data was searched by a single researcher and we have looked at the outcome in terms of postoperative length of hospital stay, wound infection, postoperative fever and need of redo surgery. In all cases we have done intracorporeal knotting of appendicular base by Vicryl 2/0 (Johnson & Johnson) instead of endo-loop knotting. Also all appendixes were retrieved in a sterile latex glove finger and delivered out via umbilical port.

Results: All patients had normal postoperative course, there were no wound infection, post-operative fever and no need of redo surgery. There were no morbidity and mortality by this technique.

Conclusion: Intracorporeal knotting of appendicular base with 2/0 vicryl and retrieval of appendix in sterile latex glove is a novel and cheaper technique. It can be considered in third world countries in which still lapaposcopic pediatric surgery is growing day by day.
MINIMAL INVASIVE PEDIATRIC SURGERY IN TIMISOARA

Eugen Sorin Boia, Stelian Pantea, Marius Calin Popoiu, Doru Vasilie, Radu Emil Iacob, Vlad Laurentiu David

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The advantages of the minimal invasive surgery, like better cosmetic outcomes, less postoperative pain or lower costs, have already been demonstrated in children. In Timisoara we have performed first laparoscopic surgical intervention on 14th of January 2013. Since then we have performed 6 cholecystectomies, 4 appendectomies, 2 interventions for varicocele, 1 for ovarian cyst and 1 for ovarian torsion. A number of 6 children, age 2 to 17 years underwent cholecystectomy for gallbladder lithiasis. We had no intraoperative accidents, no postoperative complications. Postoperative hospital stay was between 1 and 4 days, mean 2.4 days. Laparoscopic appendectomy was performed in 4 children, all for uncomplicated appendicitis. Due to technical falls we were forced to convert to opened appendectomy in one of the cases. The 2 laparoscopic Palomo interventions went without incidents. Both of children were released 2 days from surgery and had a favorable postoperative course. We also performed a laparoscopic excision of a mucous right ovarian cyst in a 14 years old girl. The intervention went without incidence and the patient was released 4 days later. We were forced to convert to open surgery after we explored the abdominal cavity of a 14 years old girl with left ovarian torsion with a polycystic ovary. We considered that the ovary was too big to safely remove it from the abdominal cavity after excision. The length of the operations varied from 30 minutes, a varicocele to almost 2 hours in one of the cholecystectomies. In conclusion, in 3 months period we have performed 14 minimal invasive surgical interventions. We had no major incidence or complications. We were forced to convert two times. The minimal invasive pediatric surgery is still at the beginning in our center but feel enthusiastic and we are anger to accumulate experience and to extend the range of pathology.
Neuroendocrine tumors of the appendix in children are rare. This is to our knowledge the first report of a laparoscopic right hemicolecctomy in a child with a carcinoid tumor of the appendix.

The patient was a 15 years-old boy who had a laparoscopic appendectomy in a local hospital due to a gangrenous appendicitis. Histology showed a 12 mm big carcinoid tumor in the mid region of the appendix.

Aims: Due to patient age, size and localization of the tumor, mesoappendiceal invasion and a relative high Ki67 proliferation index of 3-4%, we decided to perform a laparoscopic right hemicolecotmy.

Methods: The patient was positioned in the Trendelenburg position with a left lateral tilt. The operator was placed between the patient's leg and the camera assistant on the patients left side. Four ports were established.

- 12 mm port above the umbilicus.
- 5 mm port in the left hypogastrium.
- 5 mm port in the left lower quadrant.
- 5 mm port in the right lower quadrant.

We used a medial vascular approach using a 5 mm Thunderbeat energydevice to divide the ileo-colic and right colic vessels. We divided the transverse colon at the level of the right one third. We performed an intra-corporeal side-to-side anastomosis using a 60 mm linear stapler. The enterotomy was closed with V-loc 2-0. We extracted the specimen through a 4 cm long mini laparotomy in the right lower quadrant.

Results: The blood loss was negligible. The patient was allowed to eat immediately after the operation. He was discharged the second postoperative day. Histopathology showed no residual tumor and nine lymph nodes were without tumor cell infiltration.

Conclusion: Laparoscopic right hemicolecotomy seems to be a feasible method in children as definitive surgical therapy for carcinoid tumor of the appendix.
MINIMALLY INVASIVE SURGERY FOR TREATMENT OF SECONDARY INTESTINAL INTUSSUSCEPTION IN CHILDREN WITH BLUE RUBBER BLEB NEVUS. TWO CASES

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Introduction: Intestinal Intussusception (II) in infancy is idiopathic but sometimes could be secondary to lesions of bowel, such as polyps, diverticula, lymphonodes, in older children. The Blue Rubber Bleb Nevus (BRBN) is a rare disease characterized by presence of multiple venous malformation on the skin and on the bowel. These malformation can cause several complication as II, bowel stenosis, perforation. We describe minimally invasive approach for the treatment of II for BRBN.

Method: MIS was performed using a 30° scope and 2 operative ports. An Hassan port was placed through umbilicus (10mm), after exploration of abdominal cavity, several vascular malformation were identified on peritoneal wall and on intestinal loop. The ileo-caecal intussusception was seen and reduced by gentle opposite traction of two laparoscopic forceps that showed a vascular lesion responsible of intussusception. Multiple intestinal resections were performed exteriorizing loops through umbilicus, to remove the venous malformation and avoid the recurrence of II. The operative time was 45 min for the first case and 60 for the second.

Results: two girls of different age (5 and 12 year old) with BRBN, presenting abdominal pain, vomiting and images of II on USS and bowel obstruction on x-ray abdomen, were successful treated by MIS for resolution of II and for multiple bowel resections without complications. At 1-year follow-up, the patients were asymptomatic.

Conclusion: MIS is safe and effective for treatment of II in children even in more complicate cases as BRBN when an associate intestinal resection is required.
LAPAROSCOPIC GASTRIC FUNDOPLICATION IN CHILDREN UNDER 6 KG: AS WELL AS IN OLDER CHILDREN?

Vladimir Gomola, Jerome Viala, Philippe Sachs, Sophie Soudée, Alaa El Ghoneimi, Arnaud Bonnard
Robert Debré Children University Hospital, Paris, France

Purpose of the study: To describe our experience and the results of laparoscopic gastric fundoplication (LGF) in children less than 6kg.

Patients and Methods: All cases of LGF performed in children under 6 kg were retrospectively reviewed. The procedure was a Nissen fundoplication without release of short vessels. Gastroesophageal reflux disease (GERD) resistant to an optimal medical management with respiratory symptoms and/or failure to thrive was the indication for surgery. The primary endpoint was recurrence of reflux defined by the reappearance of clinical signs of GERD and / or indirect symptoms improved by the PPIs.

Results: Twenty patients were reviewed. The mean birth weight was 2581 +/- 824 grams. Six patients were neurologically impaired. Eleven patients have associated comorbidities. The average age at surgery was 4.6 +/- 1.65 months and the average weight of 4724 +/- 1053 grams. Twelve gastrostomies were performed at the same time. The mean operative time was 82 +/-38 minutes. There was no conversion. Fourteen patients were cared for in the ICU and extubated on day 0. Two patients were reintubated for respiratory distress. The average hospital stay was 39 days (6-151 days). Two patients died (10%) independently from the surgery. The mean follow-up was 24.5 +/-13.2 months. Seven patients (37%) presented with a recurrence of the GER, 2 requiring a redo laparoscopic Nissen fundoplication.

Conclusion: FGL in less than 6kg is technically feasible, but the failure rate is high. However, it can help to pass a course in some children with comorbidities and redo surgery is not necessary in these patients.
AN UNUSUAL CAUSE OF ANTRO-PYLORIC STENOSIS IN A CHILD

Mario Mendoza-Sagon, Flurim Hamitaga, Natalia Voumard, Karen Herreman-Suquet
Ospedale Regionale di Bellinzona e Valli, Bellinzona, Switzerland

After the neonatal period, diseases to induce gastric outlet obstruction in children are uncommon. We present the case of a 20 months-old girl with an unusual cause of antro-pyloric stenosis. The girl was referred to our institution for hematemesis, melena, abdominal pain, post-prandial vomiting and epigastric distention following therapy with ibuprofen. An antro-pyloric ulcer was found as a cause of the stenosis and initially it was related to a probable peptic disease. A laparoscopic Heineke-Mikulicz pyloroplasty was performed and antacid therapy was initiated. In the postoperative outcome, several endoscopies with balloon dilatations were needed to treat a recurrent pyloric stenosis. Few months later a diagnosis of eosinophilic gastroenteritis was finally established and with the specific treatment the girl presented a better outcome and no more recidives of the stenosis occurred. Up to date, one year after the pyloroplasty, the girl is free of symptoms. The clinical presentation and therapy of this uncommon disease as a cause of gastric outlet obstruction is analyzed in this case report.
LAPAROSCOPIC RESECTION OF CHOLEDOCHAL CYST: A MODIFIED TECHNIC

Ferit Bernay, Burak Tander, Ezgi Gun
Ondokuz Mayis University, Department of Pediatric Surgery, Samsun, Turkey

Laparoscopy is an alternative procedure for choledochal cysts. We report here a girl whose cyst was removed by a modified laparoscopic technic.

Case Report: Sixteen years old girl was admitted with jaundice and abdominal pain. The ultrasonography revealed a choledochal cyst. Three trocar technic was used. The gallbladder was removed. The cyst was freed from all of its attachments without damaging neighborhood tissues. The cyst 10 cm in diameter and it was disconnected from the duodenum just above the biliopancreatic channel and from the porta hepatis 1 cm below the hepatic bifurcation. With help of Ligasure and linear stapler, a segment of jejunum was prepared. The distal limb was passed through the mesocolon and porto-jejunostomy was performed by intracorporeal suturing technic. The cyst and gallbladder were taken out in an endobag. Afterwards, a jejeno-jejunalostomy was done by putting the anastomotic site out of the umbilicus and extracorporeal suturing. The postoperative course was uneventful and the patient was discharged at 10th postoperative day.

Conclusion: Laparoscopic repair of choledochal cysts is safe and efficient. Performing portoenterostomy before the jejuno-jejunalostomy enhances the surgical process.
P009

THE COMPARISON OF THE CRP LEVEL IN OPEN, LAPAROSCOPIC AND LAPAROSCOPY-ASSISTED APPENDECTOMY IN CHILDREN

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Aim: To compare elevation of the inflammatory marker – C-reactive protein in children undergoing open, laparoscopic and laparoscopy-assisted appendectomy.

Methods: A cohort of 97 consecutive pediatric patients (60 boys and 37 girls), median age 13 years, operated for acute non-perforated appendicitis in 1 year period was evaluated. Children were divided into three groups: group A (open appendectomy) - 40 patients; group B (laparoscopic appendectomy) - 26 patients and group C - 31 patients (laparoscopy-assisted appendectomy). The CRP level was marked before surgery and 48 hours after operation. The results were compared for those three groups.

Results:

<table>
<thead>
<tr>
<th>CRP level (mg/dl)</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preoperatively</td>
<td>37,15</td>
<td>34,05</td>
<td>20,5</td>
</tr>
<tr>
<td>48 hours after surgery</td>
<td>60,55</td>
<td>95,25</td>
<td>42,6</td>
</tr>
</tbody>
</table>

There was a significant difference in CRP level at 48 hours after surgery between group A and B, also B and C (p value was 0.012 and <0.001 respectively). There was no significant difference between laparoscopy-assisted and open surgery group (p value 0.098). P< 0.05 was considered statistically significant. Average operative time was 78.46 minutes for laparoscopy group and it was significantly higher in comparison with two other groups – open and laparoscopy-assisted (56.75 and 50 minutes respectively). Average hospital stay was similar in all groups (4.48 day in group A, 4.85 day in group B and 4.06 day in group C).
**Conclusions:** The study has shown that the highest serum CRP level at 48 hours after surgery was in the group of laparoscopic appendectomy. These findings may suggest that CRP elevation post surgery was caused by the duration of intra-abdominal CO2 insufflation, which lead to oxidative stress and increased immune response. Despite the difference in the CRP level, average hospital stay was similar in all groups. Hence, postoperative CRP value can be misleading after laparoscopic appendectomy and should be treated cautiously when deciding upon patient’s discharge.

**P010**

**DIAGNOSTIC LAPAROSCOPY IN TEENAGE GIRLS WITH MUNCHAUSEN SYNDROME – EARLY EXPERIENCE IN AN EASTERN EUROPEAN CENTRE**

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**Introduction:** Factitious illness may have a broad spectrum of presentations. The most extreme and dramatic form is called Munchausen syndrome, first described by Asher in 1951.

**Aim:** to present our experience regarding the role of exploratory laparoscopy in the management of Munchausen syndrome in teenagers.

**Methods:** We retrospectively reviewed the medical charts of all our patients with laparoscopic procedures, between October 2012 and March 2013. Four patients with Munchausen syndrome were identified.

**Results:** All 4 patients were teenager girls, aged between 14 and 16 years old. All cases had had previous appendectomy by open surgery. Right inguinal fossa postoperative chronic pain was the major symptom in three patients and chronic vomiting in the fourth. In all 4 cases, extensive lab tests and imaging procedures (including abdominal CT and/or MRI) provided no particular clues. In all patients, an initial psychiatric evaluation was done, showing no specific syndrome. An exploratory laparoscopy was performed in all cases, with no pathological findings, except for a nonocclusive omentum adhesion in one case. All patients felt their symptoms had disappeared after the minimal invasive procedure. However, one girl was readmitted two months later, accusing the recurrence of the symptoms, and is currently receiving psychiatric assistance.

**Conclusions:** Munchausen syndrome is a very challenging medical condition. Beyond the conventional medical approach, an interdisciplinary effort by an experienced team is required for a correct diagnosis that gives the opportunity for early psychiatric treatment. Exploratory laparoscopy should be a useful diagnostic tool for ruling out physical damage as underlying cause of the symptoms. However, caution must be observed, especially if the performing surgeons have a limited experience with the method, and interference with the learning curve still in progress is unavoidable.
PED Paaroscopic Appendectomy. Initial Experience in an East European Centre

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Introduction: We started laparoscopic procedures in July 2012. Our first laparoscopic appendectomy occurred in August 2012.

Aims: To analyse the clinical aspects encountered in the initial series of laparoscopic appendectomies (august 2012 – april 2013) in our centre.

Methods: A retrospective study of the medical documents was undertaken for the laparoscopic appendectomy procedures performed during the first 9 months since the method had been introduced in our practice. There were a number of 51 appendectomies, performed in children aged between 6 – 18 years. Senior practitioners performed 38 procedures, attendants performed 11, and residents performed 2 procedures. All procedures were performed as full intraabdominal laparoscopic appendectomies. Most cases were approached using a 3 ports placement, with a 11 mm transumbilical port for optic trocar and appendix removal and 2 other 6 mm ports for instruments. Dissection was achieved using a bipolar forceps; ligation of the appendicular base was done with 2 pretied loops. Duration of procedures ranged between 45 – 130 minutes. Insufflation pressures were between 12 – 15 mm.

Results: No conversion was required in any of the cases. Additional treated incidental conditions included 1 unilateral inguinal hernia, 2 fallopian cysts an 1 ovarian cyst. Mid-term complications included: 1 abscess of the iliac fossa, treated non surgically, 1 fifth-day syndrome requiring secondary laparotomy, 1 suppuration of the abdominal wall. Postoperative pain at the incision spots, as well as in the scapular areas was mildly experienced by several patients for 1-2 days after surgery. Hospital stay after the procedures was usually 5 days, but this is required by hospital regulations in our country.

Conclusions: Full intraabdominal appendectomy in our centre has proven to be a good alternative to the classic approach, providing an acceptable learning curve and offering a good start for further implementation of minimal invasive procedures in children.
IS THORACOSCOPY FOR MEDIASTINAL TUMOURS IN CHILDREN EFFICIENT AND SAFE?
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Aim: To better define the place of thoracoscopy and its efficiency for resection of mediastinal tumours in children.

Methods: Retrospective review of two centres experience (Apr 2000-Feb 2013). Twenty two patients (pts) aged from 5 months to 16 years old (median: 7 years). All underwent thoracoscopy for a solid or partially cystic mediastinal tumour. Seventeen had a lesion located in the posterior mediastinum (neurogenic tumors), 2 in the mid-mediastinum (lymphomas), and 3 in the thymus. Median size of the lesions was 31mm (15-80). The approach was right (n=10) and left sided (n=12).

Results: Two conversions in thoracotomies were necessary (1 tumour fragmentation, 1 difficulty during dissection). The resection was macroscopically incomplete for a thymic nodule (adhesion to the vena cava). Six patients had fragmentation of their tumour. The median operative time was 130 min (60-210). A chest tube was left for a median of 2 days (1-4) in 19 patients. Median length of hospital stay was 4 days (2-9). Pathology showed 16 neurogenic tumors, 1 para-vertebral extramedullary hematopoiesis, 2 necrotic lesions in the mid- mediastinum, and 3 anterior mediastinum lesions (1 teratoma, 1 lymphangioma, and a necrotic nodule). The resection was microscopically complete in 19 cases, microscopically incomplete in 2, and macroscopically incomplete in 1. One child developed a right pneumothorax and was re-operated at day13 post-op. Two patients with neuroblastoma developed a Claude-Bernard-Horner syndrome. There were 3 cases of local relapses of neuroblastomas: 1 was peroperatively fragmented and 2 had a microscopically incomplete resection. Median size of lesions was the same for patients with recurrence as patients without: 40mm [23-80] P=0.5.

Conclusion: Thoracoscopy for mediastinal tumors allows 83% of complete resection for lesions smaller than 80mm. However, in case of neuroblastoma, resection should be complete and without intraoperative fragmentation.
VP012

OUR EXPERIENCE OF UNILATERAL THORACOSCOPIC THYMECTOMY IN CHILDREN ALLOWED US TO SIMPLIFY THE PROCEDURE OF PECTUS EXCAVATUM CORRECTION

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Background: After a report of our experience of thymectomy by unilateral thoracoscopy, we will present the applications to other retrosternal surgeries.

Patients and methods: Unicentric retrospective analysis, from July 2003 to March 2010, of the 5 thoracoscopic thymectomies for Juvenile Myasthenia Gravis:

- 4 left-side surgical approaches, 1 right one (right extend of the thymus on the CT-scan)
- 4 flat supine positions, 1 full left lateral decubitus

Mean age at surgery was 10 years (7.5-13.5).

Results: Mean operative time was 117 minutes (75-195).

Insufflation of Carbon dioxide was done in 4 cases; selective one-lung ventilation was used in one.

We used a three-port technique, except for the right thoracoscopy (4 ports).

We placed 1 (3 children) to 2 (1 child) chest tubes for 2 to 4 postoperative days. Only one child had no drainage.

We opened the other pleura in only one case.

No conversion to sternotomy was ever necessary.

Histologic study showed thymic hyperplasia for each specimen.

The only postoperative complication was a chylothorax after the right thoracoscopy, requiring a prolonged drainage for a week.

Conclusion: Compared to sternotomy (literature data), unilateral thoracoscopy:

- Has an average operative time a third shorter
- Hasn't shown any complication
- Brings a real aesthetic benefit

This cohort shows that, compared to sternotomy, historically used for thymectomy, unilateral thoracoscopy in supine position presents a benefit. In this extra pulmonary surgery, opening both
pleura is not associated with specific complications. Our experience allowed us, from 2006, to perform implantation of a Nuss bar under video assisted control, for the correction of *pectus excavatum*, in the same surgical conditions.
NEW ENDOscopic SURgICAL TECHNIQUE FOR CORRECTION OF PECTUS CARINATUM IN CHILDREN AND ADOLESCENTS

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Aims: We describe a new thoracoscopic approach, based on the Nuss technique for correction of pectus carinatum in children and adolescents.

Methods: We introduce a steel bar, with a shorter and flatter design, which is placed in an intra-extra thoracic position through bilateral small incisions at the periareolar (children) or sub mammary (girls) level. The medial portion of the bar progresses pre-sternally, thereby achieving a good depression of the sternal body. Thus, the anterior chest wall is adequately remodeled. The surgical procedure is performed under direct vision with a thoracoscope aid, reducing so potential complications.

Results: All our patients have good outcomes, and their level of satisfaction is very high.

Conclusions: Minimally invasive surgical repair of pectus carinatum is feasible and provides excellent cosmetic results. Therefore, we are fully convinced that this thoracoscopic approach should be the method of choice in children and adolescents. We show images and video of the technical details.
CCAM AND SEQUESTRATION: TWO STANDPOINTS FOR A SINGLE CONDITION

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Background: In adults, congenital pulmonary malformations are removed because of complications. A prenatal diagnosis is frequent, and allows an early thoracoscopic surgical treatment. A retrospective study was performed to assess management in two different populations of adults and children to define the best strategy.

Method: 52 cases (33 children, 19 adults) of pulmonary malformations followed at the University Hospital from 2000 to 2012 were reviewed. Clinical history, malformation site, duration of hospitalisation, complications, and pathology examinations were studied.

Results: In children, 28 asymptomatic cases were diagnosed prenatally and 5 during the neonatal period due to infections. Surgery was performed between 2 and 6 months of age. All the adults underwent surgery, sixteen because of complications and 3 adults for anomalies mimicking tumor. The mean age of adult group was 42.5 years. In children, there was one thoracotomy, and 32 thoracoscopies, with 7 conversions for difficult exposure and dissection of vascular pedicles, bleeding, bronchial wounds. In the adults, there were 15 thoracotomies and only 4 thoracoscopies, with one conversion. Post-operative complications in the adults were twice as frequent than in children. The mean time of the children’s hospitalisation was 7.75 days versus 7.16 days for the adults. Pathological examinations showed in the children: 7 sequestrations, 18 CCAM, 8 CCAM associated sequestrations and in adults: 16 sequestrations, 3 intra-pulmonary cysts.

Conclusion: Early thoracoscopic surgery allows pulmonary parenchyma conservation with pulmonary development, reduces respiratory and infectious complications, eliminates a false positive cancer diagnosis later in life and decreases risks of thoracic parietal deformation.
MINIMAL INVASIVE LUNG-SPARING RESECTIONS BELOW 1 YEAR OF AGE

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But : Les malformations congénitales du poumon (MCP) de diagnostic anténatal (DAN) exposent aux infections ou pneumothorax et aux tumeurs malignes plus tardivement. Pour cela, la plupart des auteurs recommandent la résection durant la 1ère année de vie. La réalisation de segmentectomies permet d’éviter la résection de tissu pulmonaire sain lors des lobectomies. Le but de ce travail était de revoir notre expérience de segmentectomies minimales invasives (SMI) pratiquées chez de enfants jusqu’à 1 an.

Méthode : Tous les patients de moins de 1 an avec MCP de DAN, confirmée après la naissance par CT-scans, qui ont subi une SMI entre 2007 et 2012.

Résultats : 14 patients âgés de 4 à 12 mois (moyenne 7 mois). Il y avait 10 CCAM, 2 séquestrations intra lobaires, 2 kystes bronchiques. Les SMI ont été réalisées 6 fois dans le LID, 4 dans le LIG, 2 dans le LSG, 2 dans le LSD. La majorité ont nécessité une mini-thoracotomie en élargissant un trou de trocart pour enlever la masse. Aucune conversion n’a été faite pour saignement. La durée moyenne de drainage thoracique est de 2,1 jours. Les complications étaient un emphysème sous-cutané sans conséquence et un pneumothorax asymptomatique après retrait du drain qui s’est spontanément résolu. Dans tous les cas, une MCP a été confirmée à la pathologie, mais dans 4 cas sa nature était différente de celle suspectée radiologiquement. Le suivi moyen était de 35 mois. Tous les patients restaient asymptomatiques, avec un aspect symétrique des 2 poumons.

Conclusions : Comme les MCP sont plus fréquemment détectés en raison des améliorations de l’imagerie prénatale, nous sommes confrontés à plus de cas asymptomatiques. Une SMI réalisée au cours de la 1ère année est une solution réaliste et sécuritaire pour ôter le risque de complication inhérente à la malformation et d’éviter les irradiations récurrentes liées à l’observation radiologique.
COMPARISON OF CURATIVE EFFECT BETWEEN VATS AND RIBS BED DRAINAGE IN THE TREATMENT OF PEDIATRIC PLEURAL EMPYEMA

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Objective: To explore the application value of video-assisted thoracoscopy (VATS) in the treatment of pediatric pleural empyema and compare with traditional surgery.

Materials & Methods: Collect the 57 cases with pediatric pleural empyema which accepted surgical treatment during November 2011 to March 2013, of which 32 cases were treated with VATS (thoracoscopic treatment group), 25 patients with ribs-bed drainage (conventional treatment group), then compare the surgical effect of the aforementioned two groups.

Results: All patients were cured without relapse or deaths, there is no significant difference in the overall treatment effect between the two groups. Compared with the conventional therapy group, the thoracoscopic treatment group has less bleeding, significant shorter time of postoperative drainage, antibiotics usage and postoperative hospital stay.

Conclusion: Video-assisted thoracoscopic surgery is an effective way to cure children's pleural empyema, has the advantages of less trauma, adequate drainage, quick recovery.
PRELIMINARY STUDY OF EFFICACY FOR DYNAMIC COMPRESSION SYSTEM IN THE CORRECTION OF PECTUS CARINATUM

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²Department of Adult Thoracic Surgery. University Hospital of Saint Etienne, Saint Etienne, France,
³Department of Physical Therapy. University Hospital of Saint Etienne, Saint Etienne, France.

Objective: This preliminary study sought to evaluate the efficacy of a Dynamic Compression System (DCS) with a pressure measuring device of the deformity in the treatment of Pectus Carinatum (PC), as an alternative to surgery.

Methods: Patients presenting with PC, between 2011 and 2013, were enrolled in this study. The management protocol included: adjustment of the DCS, strengthening exercises, and monthly clinical follow-up. Criteria for including subjects were: patients with PC and pressure of initial correction (PIC) ≤ 9 PSI (pound square inch). The partial and final results were evaluated, using a scoring scale.

Results: A total of 65 patients were treated by DCS and included: 43 Symmetric PC, 18 Asymmetric PC, and 4 hybrid forms. The mean age was 13.5 years old. The mean PIC was 6.3 PSI. The mean utilization time was 19 hours daily. In 35 cases, group I, the treatment was completed with excellent aesthetic results. In 14 cases, group II, the normal shape of the thorax has been obtained; all patients in this group rated their results as Excellent; however, these patients are still wearing the brace as a retainer mode. 16 patients, group III, are progressing and improving under active treatment, and surgeons and patients are very satisfied with the initial results. In the case of hybrid forms, four patients in all, two in group II and two in group III, the following treatments are performed simultaneously: cup suction for PE and DCS for PC, with very good results so far. Non patients abandoned the treatment and no complications were found.

Conclusions: This study demonstrated that DCS is effective and helpful for treatment of PC in patients where the anterior chest wall is still compliant. The control of different pressure measurements could be used as the inclusion criteria as well as a predictive factor for aesthetic results and treatment duration.
Aim: The original minimally invasive method of pectus bar placement have been modified to improve safety and efficacy and avoid life threatening complications especially cardiothoracic injury.

Methods: Seventy-one children, with pectus excavatum (PE) underwent mininvasive repair of the anterior chest wall deformity. In 24 patients was performed modified Nuss procedure using right sided thoracoscopy and tunnel creation for retrosternal Nuss bar. Four children underwent redo-operation and 3 with funnel chest after previous cardiothoracic surgery. We used only right-sided thoracoscopy in our series. The introducer tip should always be kept in view through the thoracoscope during the mediastinal tunneling. The steel bar was inserted with convexity facing posteriorly, and when it is in position, the bar is turned over, thereby correcting the deformity. For the larger patients with larger defects, two bars were used. Endoscopic visualisation during Nuss correction of the PE allows safer support bar insertion too. Occasionally a small steel, groved plate we used to stabilize the bar(s) on the left side of the thorax.

Results: The operation was successfully accomplished without severe complications in all cases. The most frequent postoperative complications were: pleural effusion (15), haemothorax (4) and pneumothorax (3). Drainage of the thoracic cavity required 9 patients. Displacement of the pectus bar was observed in 2 cases.

Conclusions: By using the right chest thoracoscopy during mediastinal tunnel dissection can be eliminated the risk of life threatening complications like cardiac or major vessels injury. In our opinion the implantation of a Nuss bar under thoracoscopic guidance is fundamental in children patients with PE recurrence or in cases after previous cardiothoracic operation via sternotomy.
THORACOSCOPIC REPAIR OF ESOPHAGEAL ATRESIA: EXPERIENCE OF A SINGLE CENTRE

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Aims: assess operatory set-up in thoracoscopic correction of esophageal atresia evaluating the potential advantages and limitations of this minimally invasive technique.

Patients & method: In the last 3 years we have successfully operated 11 newborns with (EA) esophageal atresia and (ETC) esofago-tracheal cleft. Ten patients had a EA type III b, one had ETC esofago-tracheal cleft (length 2 cm) without EA. The median weight was 2.5 kg (range 1.2-3.5 kg). The patients were operated within 74 hours from birth, were placed in a semi-prone and left-lateral position. Two 3 mm and one 5 mm trocars were placed in the fourth, fifth, and sixth-eight intercostal space, respectively between the anterior and posterior axillary line. CO2 pressure ranged from 3 to 5 mm Hg. In 10 patients (EA) the fistula was closed with titanium endoclips. All the end to end anastomosis were performed with seven- nine interrupted sutures. In one patient ETC the defect was repaired in double running suture.

Results & conclusions: Primary repair was accomplished thoracoscopically in all EA cases but one in which sudden obstruction of endotracheal tube (coagulus) required conversion. Mean operative times was 195 (range 120-315 min.). No post-operative complications were encountered. ETC patient needed a further thoracoscopic operation after 2 month for fistula recurrence. All the patients had at postoperative day 5-8, a barium swallow and oral feedings was started. Cosmetic results were excellent in all cases. Mean follow-up was 16 month (range 3-35); none had esophageal stenosis. According our experience, the thoracoscopic approach of EA and ETC is feasible also in low weight neonates. A skilled laparoscopic surgeon is essential to reduce the possibility of esophageal injury, and further complication. Patient position, trocar set-up and pulmonary collapse (CO2) plays an essential role in reducing operative times.
ENOSCOPIIC COLPOSUSPENSION FOR PERSISTENT STRESS INCONTINENCE IN CHILDREN: DESCRIPTION OF THE TECHNIQUE AND THE PRIMARY RESULTS.

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Aim: To present the technique and the primary results of endoscopic Burch-type colposuspension in children (EC) with stress incontinence.

Material and methods: EC was done in 8 children (mean age - 14 years). All had SUI and 2 had also urge incontinence. In all patients bladder neck incompetence was proven by clinical observation, perineal ultrasound and videourodynamic study (V-UDS). All patients failed the out-patient as well as the in-hospital urotherapy program.

For this procedure the patient is in the lithotomy position. Three 5 mm ports are introduced into the Retzius space under direct vision. The anterior wall of the vagina lateral to the bladder neck is mobilized. The vaginal wall is bilaterally lifted and fixed to Cooper's ligament (polyglactin 2-0) resulting in elevation of the bladder neck. A catheter is left for 4 days. The operation time was between 56 and 150 min (mean 101). Follow up was > 6 months.

Results: In 1 patient intraperitoneal leak of CO2 occurred without need for conversion. Postoperative period was uneventful in all patients. Five patients (62.5%) were dry and 1 improved (12.5%) short after the procedure. Three patients (37.5%) were dry and 2 (25%) had less wet incidents at 6 months follow-up. One patient was wet but SUI disappeared. In 3 wet patients a control V-UDS showed no leakage. The bladder neck was incompetent in 1, hypermobile with a good vesico-urethral angle in 1 and competent in 1 wet patient.

Conclusions: Endoscopic colposuspension is an effective method to cure SUI in children. EC can be used in patients with bladder neck insufficiency when non-invasive treatment has failed. This procedure provides an excellent view of the operation field and very good cosmetic outcome.
VESICOSCOPIC BLADDER NECK PLASTY FOR URINARY INCONTINENCE IN CHILDREN

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Aim: To assess the results of endoscopic bladder neck plasty for urinary incontinence in children.

Material and methods: Twenty procedures were done in 18 patients (mean age - 9.8 years) with follow up > 1 year. Twelve patients had neurogenic sphincter dysfunction, 6 anatomical anomalies. Fifteen had failed bladder neck surgery, 9 failed additional bladder neck injection. All had good bladder compliance and 17 good bladder volume. Preoperatively, all patients had low detrusor leak point pressure. Eleven patients resumed catheterization (CIC) transurethrally, 5 patients through stoma (one had a stoma later on).

Surgery was done in lithotomy position using three 5 mm ports inserted into the bladder under direct vision during cystoscopy. Afterwards the bladder was insufflated with CO2. A U-shaped incision on the anterior bladder wall was done around the bladder neck. The strip of the mucosa was tubularized around a 12 Fr catheter and covered with a second layer of mucosa.

Results: Conversion was needed in 2 patients due to CO2 leakage. Six patients were dry and 4 significantly improved at short term (3-6 months). At long term 2 patients were dry and 5 improved. Out of 6 with CIC stoma 1 was dry and 3/6 improved. One out of 11 who catheterized through urethra was dry and 2/12 improved.

Conclusions: Decreasing success rate on the long term indicates that the bladder neck region gets destroyed in time. Construction of a continent channel for CIC can improve the outcome when anterior bladder neck plasty is to be done.
Aims: Endoscopic treatment of vesicoureteral reflux is now worldwide used with proved advantages over antibiotic prophylaxis and ureteric reimplantation. Dexell is a positively charged hyaluronic acid dextranomer sephadex. This study performed to assess the efficacy of the newer agent (Dexell) for treating patients with Vesicoureteral reflux (VUR).

Methods: This is a prospective study of 41 patients with VUR treated by endoscopic subureteric injection of Dexell from January 2012 to January 2013. Interventions were performed as a day case surgery. Success was defined as the disappearance of VUR by 3 months postoperative VCUG.

Results: VUR were unilateral in 22 cases and bilateral in 19 cases with a total of 60 refluxing ureter. Grades through I-V were (10%, 15%, 24%, 27% and 24% respectively). There were 28 girls and 13 boys. Age varies from 3 months to 13 years. 7 patients had previous failed reimplantation. 8 patients have associated neurogenic bladder. Success rate were 73.3% after first injection, 90% after second injection and 96.6% after third injection. There were 2 failures after third injection, one of them had very high laterally reimplanted ureter and the other had neurogenic bladder with diverticuli of the bladder. There were No postoperative ureteric obstructions. 5 patients developed single attack of postoperative febrile urinary tract infection.

Conclusion: Cystoscopic injection of Dexell is an effective method for treating patients with VUR. It is a safe day case procedure with no or very minimal complications. It can be used for patients with associated neurogenic bladder or after failed reimplantation.
The Management of Urachal Remnants in Pediatric Age Group: A Single Centre Experience

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Aims: Urachal remnants are rare congenital anomalies. In the last decade laparoscopic treatment of these anomalies became more frequent. The Authors report their experience in the management and minimally invasive treatment of this kind of remnants.

Patients and methods: Fourteen children, 11 males and 3 females (3 months - 13 years) with urachal remnants have been referred to our hospital. 11 patients were symptomatic while 3 were asymptomatic. In 9 cases we performed a minimally invasive excision of the remnants, in 1 we treated a giant infected urachal remnants by laparoscopic assisted drainage. Two boys are waiting the intervention and in another two cases, both under 6 months of age we adopted the wait and see US follow up. In the last five operated patients we used a particular trocars’ disposition: the trocar site for the scope was placed just below the liver edge and to the right of the falciform ligament (emiclavear line). Operative trocars have been also placed in the right flank and left upper quadrant of the abdomen.

Results: In all cases of removal, a radical excision has been accomplished easily. The new trocars’ disposition permitted a very easy excision of remnants thanks to the optimal vision (from the umbilicus to the dome of the bladder) even in case of double remnants (association of umbilical sinus and vesico-urachal diverticulum or urachal cyst). Intra- or post-operative complications and recurrences did not occur and the cosmetic results have been very good.

Conclusions: Minimally invasive surgery for urachal remnants is reliable, diagnostic and therapeutic at the same time. A new trocar disposition is proposed for urachal remnants excision. The minimally invasive treatment of urachal remnants allows a radical excision with all advantages of this procedure.
A MODIFIED PNEUMOVESICAL GLENN-ANDERSON PROCEDURE FOR URETERAL REIMPLANTATION IN PEDIATRIC PATIENTS

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Objective: To present our experience on laparoscopic pneumovesical approach for ureteral implantation, by providing our modified Glenn-Anderson technique and illustrations.

Patients and Methods: Between February 2006 and February 2012, 56 children, aged 2 months to 14 years (median age, 4.5 years), with vesicoureteral reflux (VUR) or vesicoureteral junction obstruction (VUJO) underwent transvesicoscopic ureteral implantation by a single surgeon. Different from Glenn-Anderson procedure, the technique consisted of endoscopic intravesical mobilization of the ureter, dissection of a mucosal groove from ureteral hiatus to near the bladder neck on the ipsilateral side. Incising the bladder wall above the original ureteral orifice and close the detrusor defect in the ureteral hiatus together with seromuscular layer of ureter, anchoring the distal neoureteral opening to the trigon.

Results: The procedure was successfully performed in all except one patient, who was converted to open surgery. The mean operating time was 105 minutes (range 70-260 minutes), being 95 minutes (range 70-170 minutes) for unilateral cases and 195 minutes (range 130-260 minutes) for bilateral cases. All wounds healed well and all patients were followed up by ultrasonography and voiding cystography at 1 and 6 months postoperatively, respectively. All patients with preoperative hydronephrosis and megaureter had improvement or resolution of dilatation at 1 months postoperatively, no patients showed persistent hydroureteronephrosis at 6 months postoperatively. No postoperative VUR or ureteral stenosis have been found till now.

Conclusions: Our preliminary results indicated that transvesicoscopic ureteral implantation is an effective procedure with minimal morbidity. This technique avoids the postoperative VUR or ureteral stenosis to the most degree, and offers simplicity in future access to the ureters.
COMPARING DIFFERENT PELVIS URINE DRAINAGES FOR LAPAROSCOPIC PYELOPLASTY IN CHILDREN

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Objective: To evaluate the benefits, drawbacks and indication of different pelvis urine drainages after laparoscopic pyeloplasty.

Methods: A total of 90 patients (97 sides) who had undergone laparoscopic pyeloplasty between January 2010 and February 2012 were divided into nephrostomy external drainage group (61 sides), long-term double J catheter internal drainage group (23 sides) and short-term double J catheter internal drainage group (13 sides). To compare the difference of postoperative complications and successful rate within three groups.

Results: The incidence of postoperative gross hematuria in nephrostomy external drainage group was lower than long-term double J catheter internal drainage group (P<0.01) and short-term double J catheter internal drainage group (P<0.05). The total incidence of postoperative complications in nephrostomy external drainage group was lower than long-term double J catheter internal drainage group and short-term double J catheter internal drainage group (P<0.01). The incidence of urinary infection in nephrostomy external drainage group was lower than long-term double J catheter internal drainage group (P<0.05). The incidence of drainage tube blockage and omentum prolapsus in nephrostomy external drainage group was lower than short-term double J catheter internal drainage group (P<0.05). And there was no significant difference of anastomosis obstruction incidence and postoperative successful rate in three groups (P>0.05).

Conclusions: Nephrostomy external drainage was associated with lowest rates of postoperative complications after laparoscopic pyeloplasty. However, three urine drainages have their own indication. The most suitable urine drainages could be selected by actual situation.
LAPAROSCOPIC REVISION OF MITROFANOFF PROCEDURE DUE TO URINARY LEAKAGE

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One of the complications of Mitrofanoff procedure is urinary leakage of the stoma. Endoscopic injection of bulking agents or open surgical revision could be tried to stop this leakage. This video shows the technique of laparoscopic revision of appendicovesicostomy in a patient who had urinary leakage of Mitrofanoff stoma.

**Video presentation:** A 15 years old boy had a repair of posterior urethral rupture following a traffic accident. Urethroplasty with end-to-end anastomosis was performed. A persistent stricture occurred at the anastomosis site. A Mitrofanoff procedure was needed, while self-urethral dilatation together with intermittent cystoscopy and dilatations were continuing. When the urinary bladder was full, urinary leakage of the Mitrofanoff stoma was observed. Endoscopic injection of a bulking agent was tried first, but it could not stop the leakage. It was then decided to perform laparoscopic revision of the Mitrofanoff procedure. Laparoscopic exploration showed extravesical part of the appendix (EVA) extending toward the abdominal wall. A tunnel around the EVA with interrupted sutures was formed by the neighboring detrusor muscle in a collar-like fashion. A leakage test was done during the operation. There was no leakage during the test and also in the postoperative follow up.

**Conclusion:** If urinary leakage of the stoma occurs in Mitrofanoff procedure, it is better to try endoscopic injection of bulking agents first. If the injection fails, depending on the experience, laparoscopic revision of the appendicovesicostomy could be considered as an alternative to the open procedures.
PARTIAL NEPHROURETERECTOMY IN DUPLEX RENAL SYSTEM: RETROPERITONEAL LAPAROSCOPIC APPROACH IN CHILDREN

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Introduction: the aim of this study is to present the results of our preliminary series of 10 partial nephroureterectomy performed by retroperitoneoscopy using harmonic scalpel with a preoperative 3D virtual reconstruction of bidimensional magnetic resonance images in children affected by duplication of the renal system.

Materials and Methods: We perform a retrospective study in our Pediatric Surgery Unit from January 2007 to January 2013 of all children affected by duplication of the renal system treated by retroperitoneal laparoscopic approach. Images collected were reconstructed using IRCAD VR render software.

Results: Retroperitoneal laparoscopic partial nephroureterectomy was performed in 10 children (7 males and 3 females). All patients had a non-functioning moiety of a duplex kidney and in addition recurrent urinary tract infections. Two cases were associated with ureterocele; of them in one case we performed a previous endoscopic incision of the obstructing ureterocele. All patients underwent radiological evaluation prior to surgery, by ultrasound, voiding cystourethrography, renal scintigraphy and contrast-enhanced MRI evaluations. Images collected were reconstructed using IRCAD VR render software. Patients were treated by a 3-4 trocars technique and parenchymal section was performed using harmonic scalpel. The mean operative time was 180 minutes. The mean hospital stay was 5 days. The mean follow-up was 38 months. No cases of secondary atrophy of the lower pole were observed.

Discussion and Conclusions: Volume rendering gives high anatomical resolution and it can be useful to guide the surgical procedure. Laparoscopic retroperitoneal partial nephrectomy is a safe and feasible procedure in children for experienced pediatric laparoscopic surgeons.
OP028

LAPAROSCOPIC PLACEMENT OF PERITONEAL DIALYSIS CATHETER IN CHILDREN: A MODIFIED TECHNIQUE

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Introduction/Aims: Accurate placement of long-term peritoneal dialysis catheter in children is vital to ensure high rate of catheter patency and prevent early primary access failure. Traditional open technique has high incidence of complications. In recent years, laparoscopic assisted technique has become increasingly popular. We present a modified laparoscopic technique.

Methods: During a 9-year period, 59 consecutive children (mean age, 7.2 years; range, 1 week to 16 years; M/F 37/22) underwent laparoscopic-assisted placement of curled, single-cuffed catheters with or without omentectomy. Two 5-10mm long incisions were utilised, one for the laparoscope and the other for catheter using Seldinger technique and peel-away sheath. The catheter was placed in pelvis through an oblique route under laparoscopic vision and tunnelled subcutaneously between the two incisions. When omentectomy was required, a 3 cm long supraumbilical incision allowed omentectomy to be performed externally. This incision was then closed partially before it was utilised for both laparoscope and catheter placement. Enteral feeding was started on the day of surgery and peritoneal dialysis was commenced on the same or following day.

Results: Omentectomy was required in 33 patients. There were peritoneal adhesions from previous surgery in 21 patients; change of a pre-existent catheter 6, acute haemolytic uraemic syndrome 6, coagulopathy in 2 and chylous ascites 1. Subcutaneous tunnelling was difficult in 1 patient and no other operative complications. The average operating time was 51.5 minutes (range 29-75). One child required laparoscopic catheter revision at 1 week postoperatively. The overall catheter survival rate was 86% at 18 months.

Conclusions: This technique is simple, safe and effective. It allows immediate use of the catheter with minimal complications and has an acceptable long-term patency rate. This laparoscopic technique is particularly helpful in patients who suffer an acute abdomen or previous abdominal scarring.
SILS AND CONVENTIONAL LAPAROSCOPIC TREATMENT OF VARICOCELE IN ADOLESCENTS. COMPARISON BETWEEN TWO TECHNIQUES

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Aims: Single-incision laparoscopic surgery (SILS) has gained great popularity in pediatric surgery due to its minimally invasive approach and improved cosmetic results. We reviewed our experience with the SILS Palomo procedure (SIL-V) in children and adolescents, comparing this group with a similar series operated using conventional laparoscopic 3-trocar varicocelectomy (CL-V) by the same surgeon.

Materials and Methods: A total of 50 Palomo varicocelectomies were performed in patients aged 11 to 17 years (mean, 14.5 yrs), referred to our Institution from January 2010 to January 2013. Indications for surgery included grade II-III varicocele or ipsilateral testicular hypotrophy. The SILS port was introduced through a longitudinal 1.8-2cm transumbilical incision. The surgical procedure was performed with roticulating and/or conventional 5-mm instruments. Testicular vessels were isolated "en bloc", clipped with 4 clips and cut. Operating time and pain score were compared to a similar group of 25 patients operated with CL-V.

Results: One patient of the SIL-V group required conversion to conventional laparoscopy, none to open surgery. Mean operative time was 20min (range 18 – 30) in the SIL-V group, not significantly different compared to CL-V (mean operating time 18 min, range 18 -25). No difficulties were found in the SIL-V group even when sigmoid adhesiolysis was required. The postoperative pain score was significantly better in SIL-V. 2 patients of the SIL-V group and 1 patient of CL-V group presented postoperative hydrocele.

Conclusion: The SIL-V Palomo procedure resulted safe and effective. Considering the better cosmetic results and significantly shorter postoperative pain but the lack of difference in post-operative outcomes compared to CL-V, SIL-V should be advisable in adolescents. The higher cost can be counter balanced by the good aesthetic and functional results. Larger studies and further technical improvement are needed.
But de l’étude : La transposition laparoscopique des vaisseaux polaires inférieurs (TLVPI) est décrite comme une alternative à la pyéloplastie associée à leur décroisement dans le traitement de l’obstruction de la jonction pyélo-urétérale (JPU). Nous rapportons les résultats à moyen terme de cette technique chez l’enfant dans une étude multicentrique.


Résultats : 55 enfants âgés de 8,5 ans ont été opérés (2.75-16) par voie trans-péritonéale. 31 ont bénéficié d’une intervention par laparoscopie conventionnelle et 24 robot-assistée. La durée opératoire était de 124 min (60-280) et la durée d’hospitalisation de 3 jours (1-17). Après 31 mois de recul (11-84), on note 91% de succès. 2 enfants présentant en post-opératoire des douleurs persistantes et une majoration de la dilatation rénale ont nécessité une reprise chirurgicale. 3 autres, bien qu’asymptomatiques et dont l’hydronéphrose a régressé, présentent un obstacle persistant sur la scintigraphie post-opératoire et sont étroitement surveillés. Aucune différence de durée opératoire ou d’hospitalisation, de consommation d’antalgiques et de succès de l’intervention n’a été retrouvée entre la laparoscopie conventionnelle et robot-assistée.

Conclusion : A moyen terme, la TLVPI, robot-assistée ou non, permet de traiter avec succès, dans une population pédiatrique sélectionnée, l’obstruction de la JPU liée à la présence de VPI.
OP031

LAPAROSCOPIC RETROPERITONEAL RENAL SURGERY IN CHILDREN: AN ALTERNATIVE APPROACH

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Introduction: Endoscopic approaches to the kidney are categorized as transperitoneal or retroperitoneal, the latter conventionally utilising posterior or lateral access. We describe our experience with an alternative anterior retroperitoneal approach.

Methods: Consecutive cases of children undergoing retroperitoneoscopic surgery using a modified anterior approach were included. This technique typically involves a 10 - 20mm incision near the 11th rib tip. The retroperitoneal space is developed using blunt dissection or a balloon (0.1 - 0.5 L/min, 8 - 10mmHg). The primary port is secured using a purse-string suture. Two 3.5mm working ports are sited near the 12th rib tip and medial to the anterior iliac spine. Gerota's fascia is opened laterally for anterior exposure to the kidney and ureter. Radiological follow up routinely consists of ultrasound at 1, 4 and 12 months and MAG3 studies as necessary.

Results: There were 69 cases over a four-year period (age 5 months to 16 years, n = 26 < 2 years, laterality 60% left-sided). Cases included pyeloplasty (48), nephroureterectomy (13), heminephroureterectomy (7) and pyelopyelostomy (1). Intra-operative characteristics included perinephric inflammation (8), enlarged/abnormally positioned kidney (8), and in-situ nephrostomy (2). Conversions occurred in 17%, relating to limited access attributed to port positioning (5) and peritoneal perforation (7). These events mostly occurred in the early phase of experience. Overall peritoneal perforation rate was 22% (15/69). These events did not impair successful retroperitoneoscopic procedure completion in 53% (8/15). There were no other unintended intra-operative events. Mean operative time for pyeloplasty was 225 minutes (150 - 329). Average hospital stay was 2 days (1 - 4). Post-operative complications included transient foot drop (1) and PUJ obstruction recurrence (1).

Conclusions: The technique is safe and effective, allowing excellent direct access to target operative anatomy within the retroperitoneum. Perforation of the peritoneum does not necessarily require conversion.
LAPAROSCOPIC HEMINEPHROURETERECTOMY IN A DUPLEX KIDNEY

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Heminephroureterectomy is a challenging procedure especially with laparoscopic approach. We report our experience with endoscopic partial resection of duplex kidney and ureter.

Objective: To evaluate the safety and efficacy of laparoscopic heminephroureterectomy in a duplex kidney by retrospective analysis.

Materials and methods: Between June 2008 and January 2013 sixteen cases were operated by transperitoneal laparoscopic approach. The patient was lateral oblique positioned with involved side elevated. Three trocars were placed. The colon was mobilised or the lower left part of kidney was reached through colonic mesentery. The ureters were identified first than vessels of the resected part of kidney. The vessels and the kidney were divided with Biclamp or Ligasure. In nonrefluxing ureter the distal part was left opened, in other cases it was closed near the bladder. The specimen was removed in the bag through the umbilicus. The drain was left in perirenal space and the bladder was catheterized.

Results: There were 4 boys and 12 girls with mean age of 5.61 years (range 3 months - 16.7 years). The indication for procedure were ectopic ureter with urine dribbling in 2 cases, recurrent urinary tract infections in 14 cases with vesicoureteral reflux to non-functioning part in 4 cases or ureterohydronephrosis in 10 cases. The upper left pole was involved in 9 cases, lower left pole in 4 cases and in 3 cases right upper pole. The mean operative time was 146 min, (range 95-175 min). The minor urinary leak was observed in 3 cases (19%), prolonged urinary leak was observed in 4 cases (25%, 6-14 days). Control ultrasonography 3-5 months after procedure revealed no fluid collection around kidney. The scintigraphy after one year revealed preserved function of the operated kidney in 7 cases, 4 cases are waiting for examination and one case was lost from observation.

Conclusion: Laparoscopic heminephroureterectomy in children is efficient and safe. Urinary leak is a frequent complication with a good prognosis.
The Role of the Minimally Invasive Surgery for the Treatment of the Gastroesophageal Reflux Disease: A Single-Center 16-Year Experience

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Aim: The aim of this report is to analyse the role of minimally invasive approach for treatment of gastroesophageal reflux disease (GERD), through a retrospective analysis. We present our 16-year experience.

Method: This is a retrospective analysis of patients who underwent laparoscopic fundoplication between January 1996 and December 2012 in our hospital. Collected data were analyzed regarding clinical patient features, surgical approach, complications and clinical outcome.

Results: At our institution, 319 patients underwent laparoscopic fundoplication in the study period. The mean age during the surgical treatment was 4.5 years, the mean weight was 17.5 kg. 134 patients were neurologically impaired with disordered oropharyngeal swallowing and 55 patients underwent video-assisted gastrostomy. In 25 cases, the GERD was a complication of esophageal atresia repair. Antireflux surgery is indicated in patients with inadequate response to medical management, with peptic esophagitis, with feeding difficulties and respiratory tract disease. The GERD was investigated with barium meal, 24-h pH-metry and esophagoscopy with biopsy. The used techniques were: in 162 patients laparoscopic Nissen fundoplication, in 154 laparoscopic anterior fundoplication, in 3 laparoscopic Toupet fundoplication. In 7 cases, there was need for conversion to open surgery: in 3 cases conversion was due to gastric perforation, in 2 cases to dense adhesions from previous surgery and in 1 case to esophageal perforation. In 8 cases, there was need to redo fundoplication for recurrent GERD symptoms. There was an immediate post-operative complication, bleeding with hemothorax, which required an urgent reoperation. There was no evidence of long-term complications. The follow-up demonstrates a 78% success of GERD surgery.

Conclusions: The analysis of patients shows that the choice of operative method depends on the stage of GERD and laparoscopic experience of the surgeon. Our experience leads us to believe that the minimally invasive technique is the gold-standard for the surgical management of GERD.
THE ROLE OF LAPAROSCOPY IN THE MANAGEMENT AND TREATMENT OF ACUTE ABDOMEN IN PEDIATRIC PATIENTS

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Aim: Laparoscopy continues to be increasingly adopted also for emergency cases in pediatric surgery. We report our experience in the laparoscopic management of acute abdomen in the last ten years.

Methods: A retrospective review was performed on 1280 patient who underwent laparoscopy for a provisional diagnosis of acute abdomen from January 2002 to December 2012. In this study both patients laparoscopically treated and who underwent explorative laparoscopy were included.

Results: A total of 1280 emergency laparoscopic procedures were performed from January 2002 to December 2012 paediatric patient with a provisional diagnosis of acute abdomen. The following pathologies were founded: acute appendicitis (1169), omental infarction (7), intestinal intussusception (22), incarcerated hernia (6), ovarian torsion (18), bowel obstruction from adhesions (15), complicated Meckel's diverticulum (9) adnexal pathology (16), intestinal volvulus secondary to a congenital mesenteric defect (1), inveterate splenic torsion (1), ascites due to idiopathic perforation of biliary tract (1), enteric duplication cysts (2), lymph nodes infected by Yersinia (2), intestinal lymphangioma (3). In 8 cases the explorative laparoscopy excluded surgical causes of abdominal pain. In 91% of cases a therapeutic laparoscopy was successfully performed. Laparoscopic approach allowed to modify the preoperative diagnosis in 48 cases. In 25 cases concomitant anomalies were founded.

Conclusions: Laparoscopy is a useful tool also in emergency cases. It permits a mini-invasive treatment of the most frequent causes of acute abdomen in children with better aesthetic results. It also allows to establish a correct diagnosis in controversial cases. A complete exploration of the abdominal cavity is also helpful to discover associated asymptomatic anomalies.
TOTAL LAPAROSCOPIC APPROACH FOR CHOLEDOCHO LITHIASIS IS DOING AS WELL AS THE SHINCTEROTOMY

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Aim of the study: to report the results of a total laparoscopic approach for choledoco-lithiasis as a primary treatment before the sphincterotomy.

Patients and method: It’s a retrospective study of all children treated in our center for choledoco lithiasis from 1996 to 2012. A trans cystic approach for all the procedures was used. Patient’s data, technic, complications and results were reviewed.

Results: 33 children were treated. The average age at surgery was 10 years [4 months-18 years]. 16 patients have a sickle cell disease (48.5%), 5 a spherocytosis (15.1%), 1 a G6PD insufficiency, 1 thalassemia, 1 an ulcerative colitis, 1 a nephrotic syndrome and 8 were idiopathic (21.1%). All children have a US exam showing a choledoco lithiasis and a cholestasis on the pre operative blood work. For all cases, a cholecystectomy was done firstly. On nineteen patients, the lithiasis was seen on the operative cholangiography and flushed with normo saline fluid. Additionally, 9 required the use of a dormia or fogarty catheter trying to clean the duct. On the remaining 14 patients, the lithiasis was not seen, probably already flushed by the operative contrast study. 3 patients required a post operative sphincterotomy because we failed to clean the choledocal duct. One patient has a persistent image on the cholangiography but not needing a sphincterotomy. Finally, 29 patients were stone free (88%). There were 3 complications (9%): a choledochal duct injury requiring a conversion to open approach, 2 hemorrages related to a cystic artery stump. The average hospital stay was 9 days. All children are doing well with a 2 years average follow up.

Conclusion: treatment of choledoco lithiasis should be attempted by laparoscopic approach prior to a sphincterotomy. In 88%, it allowed to clean the choledochal duct with a minimal complication rate.
Introduction: We started doing esophageal atresia (EA) by means of thoracoscopy in 2002 but this was halted in 2005 due to some results which did not meet our expectations. However, with the application of minimally invasive surgery as a routine technique and experimental surgery, we improved our surgical skills and since 2007 we have been using this approach in the treatment of this pathology with good results.

Aim: Evaluation of learning curve in the thoracoscopic treatment of EA with distal fistula.

Methods: Retrospective review of 28 operated patients, from 2002-2013. Operative time, duration of mechanical ventilation, chest drain days, start of feeding and complications were analyzed.

Results: Average age at surgery was 2.7 days and mean weight 2.761 g. Surgery was performed and completed in 23 patients, whereas with 2 of them only the closure of the fistula was performed because of hemodynamic instability. 3 more patients were converted into thoracotomy. Intracorporeal suture was performed. The mean operative time was 210 min (445-120). Mechanical respiration was used for 5 days (4-12). Chest drainage was left in 16 patients for an average of 7.5 days. Start of oral intake was 10.7 days. Postoperative complications of the 23 completed cases were: 6 stenosis (26%) that required 2 to 6 dilatations, 1 dehiscence resolved conservatively, 2 (8,7%) refistulization and 1 more case 1 month after surgery due to a difficult dilatation. 1 unusual complication was a missed needle in thorax.

Conclusion: Thoracoscopy provides clear advantages over open repair of EA because it offers us an excellent view and magnification. However, the esophageal anastomosis in this manner, requires advanced surgical technique that we acquired only after a long learning curve in other easier pathologies and experimental surgery. We are obtaining now similar results to those of thoracotomy without the disadvantages of it.
GASTRIC SLEEVE - SURGICAL TREATMENT FOR MORBIDLY OBESE TEENAGERS

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Aims: Childhood obesity is one of the most serious public health challenges. The problem is global and is affecting many countries. In Romania, the percentage of overweight teenagers doubled since 2005 and childhood obesity rates brought the country on the third place in the European Union. A high percentage of teenagers have poor compliance to dietary interventions. At the same time, the surgical treatment is now widely accepted as a treatment of morbid obesity. Our objective was to assess the efficiency of sleeve gastrectomy in morbidly obese teenagers.

Methods: Between 2003 and 2013 we performed 1230 bariatric procedures, of which 36 patients aged between 10 and 18 years. We analysed excessive weight loss, associated morbidity, as well as improvements in quality of life in our study group, who included 34 patients who have had the sleeve gastrectomy performed. Parental consent was obtained for all the patients.

Results: Teenagers' metabolism has particular features due to hormonal changes, but also to social and emotional toll, and the results from bariatric surgery in adults can't be simply translated to this population segment. In our study group, mortality was null, associated morbidity was relatively low (14.7%, p<0.05), while excessive weight loss was significant (p<0.05).

Conclusion: For teenagers, weight loss and quality of life are significantly improved after sleeve gastrectomy, while associated morbidity is low.
THE SHEFFIELD TRAINING EDUCATION AND EVALUATION IN LAPAROSCOPIC CHOLECYSTECTOMY (STEELC): A PROGRAMME FOR ATTAINING COMPETENCE

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British trainees in adult surgery now perform over 60% of all Laparoscopic Cholecystectomies (LC), with the average year-6 trainee having done 170 LC. Similarly, in the US, the proportion of LC performed by general surgery Residents increased over the last few years from 30% to over 70% with an average of 100 Cholecystectomies per Postgraduate year.

However, training in LC for Paediatric Surgery trainees remains affected by the relative small number of cases performed per year. A minimum of 40 LC per surgeon per year has been recommended in adult literature to minimise morbidity and improve outcomes. In our institution, we performed 56 Cholecystectomies over a 15 years period: 45 of those (80%) were LC. Only 16% of all Cholecystectomies were performed by trainees.

We propose a hierarchy of simulation, education and evaluation with the aim of better preparing trainees in Paediatric Surgery to safely attain competence in LC. The proposed system can be divided into three main modules based on the three stages of learning. The first module involves Work Based Assessments on Cholelithiasis, basic and advanced laparoscopic courses, and adult LC lists experience (Cognitive phase); the second module involves practice on a laparoscopic trainer and virtual reality simulator (Associative phase). Finally, a Procedure Based Assessment with a virtual reality simulator and a paediatric patient will certify competence (Autonomous phase) in LC. This structured training programme will overcome the relatively small number of cholecystectomies performed by paediatric surgeons compared to adult surgeons. This system measures trainees’ competency specifically in a basic biliary operation and the same method could be applied in future to other paediatric procedures.
Aims: Laparoscopic cholecystectomy (LC) is the gold standard for the management of cholecystolithiasis. Traditionally, cholecystolithiasis and cholecystectomy was offered to the cohort of 4 “F”s (female, fat, fertile and forty). However, there has been an upsurge in the number of pediatric patients who present with cholecystolithiasis and are treated with LC. The aim of this study was to determine if there was a paradigm shift in our cohort.

Methods: The medical records of patients treated between 1998 and 2010 were reviewed according to their Body-Mass-Index (BMI) and reasons for presentation with cholecystolithiasis.

Results: During the review period, 63 patients were identified with cholecystolithiasis who were offered LC. There were 35 females and 28 males that presented with a mean age of 13.8 years (1.2-18 years). At the time of surgery, the mean BMI was 36 kg/m² (12.6-42.2). Extrapolation of cholecystolithiasis with concomitant diseases showed an association with spherocytosis in 6, hypothyreosis in 3, and osteosarcoma in 1 patient(s). Five patients were treated with oral contraceptives. An increased familial incidence was found in 13. When considering the rates of LC per year, a steady increase in the number of LC could be observed since 1998 with a peak in 2009. Of the total number of patients that underwent LC, 24 patients (38%) were found to be obese, with 12 (50%) of these patients operated between 2007 and 2010.

Conclusion: Our patient cohort demonstrates a remarkable male prevalence (~45%) in presentation of pediatric cholecystolithiasis. A steady increase in the number of LC with a peak towards the end of the decade is noticeable which can be also correlated to the increased rate of adolescent obesity. This retrospective study in our pediatric cohort demonstrates a stark shift in the age pendulum of LC from the traditional 4F norms.
Purpose: Endoscopic Submucosal Resection (ESD) has gained wide acceptance in Asia in the treatment of early stage malignant gastric tumors. ESD enables en bloc resection of tumors that would otherwise require piecemeal endoscopic removal or surgical resection. Recurrence rate for ESD has been shown to be equivalent to surgical resection in select cases. ESD has potential application in the resection of intestinal lesions in children that cannot be removed by conventional endoscopic techniques and would otherwise require surgery.

Methods: ESD was used to perform resection of a 4cm symptomatic broad based gastric hamartoma at the incisura in a 5-year-old patient with Peutz-Jagher syndrome. A single channel gastroscope with 2.8mm working channel was used to access the stomach. A submucosal injection was performed with a mixture of normal saline and epinephrine. An initial mucosal incision was performed with an endoscopic needle knife and subsequent dissection was performed using a combination of blunt dissection and a Triangle Tip (TT) endoscopic knife.

Results: The tumor was successfully removed “en bloc” in 98 minutes by ESD.

Conclusion: ESD is feasible for the resection of large intestinal lesions in children.
COMBINED LAPAROSCOPIC-ENDOSCOPIC GASTRIC POLYPECTOMY

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Endoscopic polypectomy remains the first choice treatment for gastrointestinal polyps. In some circumstances a combined laparoscopic-endoscopic polypectomy, so-called "rendez-vous" procedure is performed. The aim is to present this method as it was applied initially 7 years ago at our institution for a case of familiar polyposis.

The first case was a four year old girl who was hospitalized because of hemathemesis and consequent anemia. Upon stabilization of vital parameters, an esophagogastroduodenoscopy was made during analgosedation. A two-headed polyp on a broad stalk was observed, almost completely filled the gastric antrum. On the top of the polyp head, actively bleeding ulcers were seen. Endoscopically, an injection hemostasis was made. The next day, a laparoscopic-endoscopic polypectomy was performed under general anesthesia. The postoperative period was uneventful.

The second case was a 14 month old boy, who was admitted because of fever due to unknown etiology. Non-steroidal anti-inflammatory drugs were administrated. After repeated hematemesis, endoscopy revealed a large ulcer in the gastric antrum. The biopsy material demonstrated nonspecific gastritis. Afterwards, the patient was treated with pantoprazole. After a four-week follow up, endoscopy with biopsy was negative again. After another two weeks, a flank mass in the antrum was found during an ultrasound examination. Endoscopy and CT scan confirmed the finding of a polypoid submucosal formation diameter of 48x40x40mm. A minimal invasive excision of the tumor in its entirety was made. Hystological findings were that of a gastrointestinal stromal tumor (GIST) with R0 resection. The largest dimension was 5 cm, with areas of necrosis. It is composed of spindle cells and a mitotic count of 5/10 HPF, Ki 67 +, CD 117 +, CD 34 +.

A combined laparoscopic-endoscopic resection of gastrointestinal polyps is safe and a minimally invasive technique that enriches the therapeutic range of health care institution.
CARDIAC ANOMALIES IN TERM AND PRETERM INFANTS - A REASONABLE CONTRAINDICATION TO LAPAROSCOPIC SURGERY?

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Aims: Laparoscopic surgery is in advance in babies and even premature infants. Size and weight of the child as well as technical aspects are no longer limiting factors. Even more complex and long-lasting operative procedures are progressively performed. Nevertheless, there is a lack of knowledge about the influence of pneumoperitoneum on the cardiovascular system, especially in infants with cardiac anomalies. The aim of this study was to clarify the hemodynamic effects of laparoscopic surgery in term and preterm infants with cardiac anomalies and to clarify whether heart defects are a reasonable contraindication to laparoscopy.

Methods: Retrospective, single institution study including all term and preterm infants with cardiac anomalies undergoing laparoscopic surgery within the first six months of life. Over a 9-year-period, the type of cardiac anomaly, performed operative procedure, operative time, intra-abdominal pressure and postoperative complications were evaluated.

Results: Altogether, 80 preterm and 51 term infants underwent different complex and even long-lasting laparoscopic procedures. The most common procedure was laparoscopic hernia repair. Median operative time was 67 minutes with a median intra-abdominal pressure of 13 mm Hg. Cardiac anomalies ranged from persistent foramen ovale (PFO), atrium septal defect (ASD) to ventricular septal defect (VSD) and tetralogy of Fallot. In the postoperative course hemodynamic impairment was noted in three infants (2.3 %). Only one of them presented cardiorespiratory instability in the postoperative course.

Conclusion: In this retrospective study, different laparoscopic procedures could be performed in numerous infants with cardiac anomalies. Preoperative evaluation by a firm pediatric cardiologist is crucial and decides about the operative approach. In the future, prospective studies are necessary to further clarify the use of laparoscopic surgery in this distinct group of patients.
We practice splenectomy as a two step procedure in order to make it a safer operation.

First step: spleen embolisation by an interventional radiologist.

By a Seldinger technique a microcatheter is brought into the splenic artery. Through this catheter polyvinyl-alcohol microparticles are injected in the distal portions of the two major division branches of the splenic artery. Then several platinum coils are implanted in the proximal splenic artery. This technique gives a complete vascular lock preventing arterial and venous bleeding.

Second step: immediate splenectomy

In our institution the catheterisation room is inside the operating theatre and after the embolisation the anaesthetized child has only to be switched to the operating room just beside.

Patients and methods: between January 2008 and March 2013 we performed 16 splenectomies in children suffering from hypersplenism due to several hematologic diseases. Ages varied from 3 to 13 years. One patient underwent laparotomy because of adhesions due to previous surgery. The others were done laparoscopically. Spleen dissection was performed using LigaSure and hook. We noticed one complication of the embolisation: a perforation of the splenic artery but a platinum coil was immediately implanted proximal to the perforation and the operation could simply go on. There were no conversions to laparotomy, none of these patients had to be transfused perioperatively.

Conclusion: literature describes bleeding and conversion rates up to 10% and even some fatalities for laparoscopic splenectomy. With spleen embolisation just before laparoscopic splenectomy we encountered none of these problems. In the future conception of surgery it might be interesting to accommodate operating theatres with a catheterisation room.
Aim: Laparoscopic surgery is the treatment of choice for cholecystectomy. Robotic surgery removes the ergonomic and technical difficulties that may be associated with this approach conserving the same benefits for infants and young children. To confirm that robotic assisted laparoscopic cholecystectomy is safe, feasible and advantageous procedure in pediatric age although initial studies showed significant set up time and operating time.

Material and methods: In the last 12 months, 6 patients (5 females and a male) age ranging from 14 to 19 years, affected by cholelithiasis underwent robotic assisted cholecystectomy. All procedures were carried out using the two robotic operative ports of the new Da Vinci HD®. An accessory 3 mm laparoscopic port was inserted if necessary. The telescope port was always placed using an open technique. Operating time, including docking time, ranged between 120 to 180 min (average operating room time 145 minutes); only in a case with a very important cholecystitis operating time was considerably longer (4 hours) than other previous cases. Trocars were usually positioned at umbilicus (telescope), left hypochondriac and right iliac abdominal quadrants (operative ports); in a patient presenting a left paramedian abdominal scar for previous splenectomy, all three ports were placed on the scar line without any operative problems. Conversion was never necessary.

Results: We analyzed our preliminary experience with the DaVinci HD® technology system for cholecystectomy. Primary end points were feasibility without conversion and the absence of major complications. Operative times were analyzed to define the learning curve: total operative time, including docking time, resulted comparable to classic laparoscopic cholecystectomy.

Conclusion: Our preliminary experience suggests that robotic assisted cholecystectomy in children is safe, feasible, worth of clinical application.
LAPAROSCOPIC REPAIR OF TRAUMATIC BLADDER PERFORATION

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Introduction: We report here a two patients with with a traumatic intraperitoneal bladder dome rupture repaired by laparoscopic intracorporeal sutures.

Case 1: A 3 year old boy fell from second floor of his house on the ground. He had traumatic lesion on his lower abdomen and pelvic fracture. Due to bloody urine drainage, a cystography has been performed and an extravasation from the dome of bladder into the peritoneum has been detected. At laparoscopy, a three cm long vertical perforation at the dome of the bladder has been found. The perforation was repaired in two layers with intracorporeal suture technic. The postoperative course was uneventful.

Case 2: A 3 year old boy was admitted with a history of road accident. He had traumatic lesion on his lower abdomen and pelvic fracture. Computed scan revealed free intraabdominal fluid. The urethragram showed spreading contrast material into the abdominal cavity. Laparoscopic exploration revealed a 3 cm length perforation at the top of the bladder. The injury was repaired with the extracorporeal guided sutures in a twofold fashion. Postoperative follow-up was uneventful.

Conclusion: Laparoscopic repair of traumatic perforation of bladder dome is a safe and effective minimally invasive method. The cosmetic outcome is superior.
Congenital polyps of the posterior urethra are a rare cause of bladder outlet obstruction in boys. They are benign and usually lined by a transitional epithelium.

We report a case of a 6 months old boy referred for obstructive urinary symptoms. Abdominal ultrasound showed an oval, soft tissue mass arising from the posterior urethra and projecting into the bladder lumen. Voiding cystourethrography demonstrated a well-defined oval filling defect in the prostatic urethra. The diagnosis of urethral polyp was confirmed at cystourethroscopy.

In the absence of any form of grasping forceps, snare or resectoscope, a 0 PDS suture was used as a lasso, through the instrument channel of the cystoscope. The base of the polyp was encircled, enabling it to be avulsed, removed and sent for histology. A fibroepithelial polyp was confirmed and the boy returned to normal voiding function.

The suture lasso, made from a length of 0 monofilament suture, crimped at its apex, is a cheap and effective way to remove stents and urethral polyps, especially when only a diagnostic cystoscope is available. Crimping the mid point of the suture allows it to fit down the smallest instrument port and provides a lot of control of the loop within the bladder. It is an ideal way to perform interventions in small boys.
LAPAROSCOPIC MANAGEMENT OF NONPALPABLE TESTES: WHICH METHOD TO BE CHOSEN?

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Aim: We aimed to evaluate the operative management and outcome of laparoscopy in patients with non-palpable testes (NPT).

Patients and Methods: Between 2005 and 2012, seventy patients with NPT, (mean age 8 years, 1-15 years) had a laparoscopy. All cases with a viable testis underwent laparoscopy assisted inguinal surgery after laparoscopic evaluation. In case of vanishing testis, the operation was discontinued. Every attempt was made to protect the vas and vessels for orchidopexy in case of intraabdominal testis, and in every instance, the gonad was preserved unless severe atrophy.

Results: A total of 79 testes were evaluated. The NPT was bilateral in 9 (12.9%) and unilateral in 61 (87.1%) patients (48 left, 13 right). In 53 patients (55 testes, 69.6%) the vas and vessels were entering the internal inguinal ring (21 orchidopexy, 34 orchiectomy), whereas in 15 patients (22 testes, 27.8%), the testis was intraabdominal or just at the inguinal ring (12 orchidopexy, 10 orchiectomy). In that case a laparoscopic assisted orchiopexy was made through the inguinal canal via an inguinal incision. We performed 44 (55.7%) orchiectomy and 33 (41.8%) orchidopexy. One patient had a cross ectopia. Another one was a true hermaphrodite and he had an ovotestis. Two testes were vanishing (2.5%). Only one patient needed a two stage Stephens-Fowler procedure, however at the second-look surgery, the testis was found to be too atrophic to preserve. In 38 patients, a concomittant open internal inguinal ring was present. Histopathologic examination revealed mostly fibrotic tissue or testicular atrophy.

Conclusions: Laparoscopy is mandatory for every patient with NPT for diagnosis and treatment. Orchidopexy with preserved vessels is almost always possible unless atrophy. We believe laparoscopic assisted inguinal orchidopexy is most physiologic approach for the treatment NPT. Stephens-Fowler procedure should be exceptional.
**LAPAROSCOPIC INGUINAL HERNIA REPAIR**

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**Aim:** We present our results of laparoscopic inguinal hernia repair in children.

**Material and Method:** Laparoscopic inguinal hernia repairs performed between January 2008 - April 2013 are evaluated retrospectively. A total of 1897 inguinal hernia repairs are performed during this period. Laparoscopic inguinal hernia repair have been performed in 133 patients (63 female, 70 male). The mean age of the patients was 5.57 years (ranged 1 month - 17 years). For the repair either Schier's or the Montupet's or the LNAR method.

**Results:** 67 cases were on the right side (% 50.4), 33 cases were on the left side (%24.8) ve 33 cases were bilateral (%24.8). Twenty-three patients, 8 of them bilateral hernias, are operated with Schier’s method. Twenty-eight patients, 4 of them bilateral, are operated with Montupet’s method. Eighty-two patients, 21 of them bilateral, are operated with Laparoscopic Needle Assisted Repair of inguinal hernia children’ (LNAR) technique.

Nine of the cases were recurrent hernias. In seven cases umbilical hernia concomitantly existed and these umbilical hernias used as camera ports and repaired at the end of the operation. One patient preoperatively diagnosed as recurrent hernia was seen had no hernia during laparoscopic exploration. On the exploration of internal ring of the two patients, which were diagnosed as bilateral inguinal hernia preoperatively, one had unilateral hernia, the other one had no hernia at all. One femoral hernia is diagnosed and repaired. No complications or recurrence occured in any of our cases.

**Conclusion:** Laparoscopic inguinal hernia repair is a safe method in children. In comparison to the other laparoscopic operations it is relatively cheap. It is advantageous especially in recurrent hernias, in cases concomitant with umbilical hernias, or bilateral hernias. LNAR method is especially can be the first choice in girls because of its lesser operative time, expence and need for experience.
THE POSTERIOR URETHRAL VALVES: ABOUT 50 CASES

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Summary: The posterior urethral valves (PUV) are the most common obstructive uropathy of the boy. It is a serious defect because that can lead to destruction of renal parenchyma and kidney failure.

Aim: To clarify taken surgical care of this uropathy.

Patients and methods: All children, managed for PUV during a period of 10 years (January 2000 to December 2010)

Results: A total of 50 boys were studied. Their age ranged from one day to 02 years. The diagnosis was made prenatally in 30 cases and postnatally in the remaining cases during a urinary tract infection in 20 cases and voiding disorders in the remaining cases. All these children were investigated by renal ultrasound and retrograde cystourethrography (RCUG). Ultrasonography showed a bilateral uretero-hydronephrosis in 45 cases and unilateral in 05 patients with reduced renal parenchyma in 25 cases. The RCUG made the diagnosis of PUV in all cases, showing dilated posterior urethra and distended bladder. Bladder diverticulum was seen in 25 cases and a vesicoureteral reflux (VUR) was present in 32 cases. DMSA renal scintigraphy performed in 28 cases showed decreased uptake of cortical lesions in all cases with a non-functioning kidney in 12 cases. In addition to the correction of electrolyte disturbances and the appropriate antibiotics in case of urinary tract infections, treatment consisted of a first valve endoscopic section in 37 cases and a cystostomy in 13 cases. The immediate evolution was favorable in all cases, except two patients who died because of acute renal failure despite intensive resuscitation.

Conclusion: Despite advances in diagnosis and management of posterior urethral valves, the prognosis of this uropathy remains subject to a significant risk of progression to ESRF
LAPAROSCOPIC PALOMO TECHNIQUE: EXPERIENCE OF A SINGLE CENTRE

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Purpose: There are several procedures to treat Varicocele, as radiologic embolization, open and laparoscopic surgical approach, high retroperitoneal method, inguinal microscopic method. We descried our experience with transperitoneal laparoscopic approach with ligation of the artery and veins (Palomo). We analyzed ours results, early and late complications relating surgery and testis.

Patients and methods: From 2007 to 2013 in our institution 80 patients have been treated for left varicocele with laparoscopic high ligation of spermatic vessels (LHLSV). Using two operative ports (5mm), a peritoneal window was created over the spermatic vessels 5 cm above the internal inguinal ring. The spermatic vessels had been legated using endoclips in 68 cases and by ligasure in 12 cases.

Results: All patients treated for varicocele during the period analyzes underwent LHLSV. The main indications were varicocele grade III, differences in testicular volume and symptoms. The mean operative time was 38,5 min (range 20 - 60). No bloody losses have been reported.

At first control after surgery, no early complications were seen. At 12-24 years of follow-up 19 (23.7%) patients presented ipsilateral hydrocele that only in 9 (11.2%) cases required a surgical procedure.

No testes atrophy or recurrences of varicocele have been seen. In all cases we had a good cosmetical result.

Discussion: despite several options for treatment of varicocele none has proved superior in term of recurrence or hydrocele formations. According with the literature, we believe that LHLSV is really a good choice for young population with high grade varicocele.
ISOLATED TUBAL ABNORMALITIES IN CHILDREN

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Aim: Isolated tubal abnormalities in children are rare. Some of these may initiate significant morbidity and/or manifest as life-threatening clinical problems at any point in the female life. A comprehensive understanding of symptoms, diagnosis, optimal imaging modalities, medical and surgical management is vital to identify early diagnosis and the best treatment option. The presenting symptoms are nonspecific and are common to many other conditions, so its preoperative diagnosis is rarely made.

The purpose of this study was to review our cases and imaging findings in children and adolescents who showed the suspicion of fallopian tube pathology.

Materials and Methods: The clinical entities described in this study included 5 cases affected with isolated tubal torsion, tubal and paratubal cysts (cystoadenofibroma), hydrosalpinx and salpingitis. All patients underwent minimally invasive surgery. Age ranged from 12 to 15 years. Two girls presented with acute abdominal pain: a case of isolated tubarian torsion and a case of pelvic inflammatory disease (Chlamydia salpingitis). The remaining patients were affected by hydrosalpinx (one patient) and by tubal cystoadenofibroma (two cases).

Results: All patients underwent to minimally invasive surgery; none of them presented with any ovarian disease. Mean operating time was 120 minutes. Ovaries and Fallopian tubes were preserved in all patients but one presenting tubarian necrosis due to torsion. No major or minor complications were recorded.

Conclusion: Minimally invasive surgery is indicated in all cases of isolated tubal abnormalities in children. Ovarian and Fallopian tube conservation should be prioritized. Preoperative imaging evaluation remains doubtful especially if there is not evidence of any associated ovarian pathology.
RESULTS OF TREATMENT USING THE FOWLER STEPHENS ORCHIDOPEXY METHOD IN CHILDREN WITH DIAGNOSED UNDESCENDED TESTIS IN OUR CLINIC

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Introduction: In 2007 we carried out the first minimally invasive abdominal operation. All children with a nonpalpable testis or a testis diagnosed as undescended are operated using laparoscopy. In the case of a testis located in the abdominal cavity, which it has not been possible to bring to the scrotum or inguinal canal, we operate using the Fowler Stephens method.

Aim: Presentation of initial results of treatment using the Fowler Stephens method in children with diagnosed undescended testis in our clinic.

Method and materials: Between 2007 and 2012 we carried out 14 operations on children with diagnosed undescended testis using the Fowler Stephens orchidopexy method. The majority of the children were infants. After finding the testis in the abdominal cavity we attempt to draw it towards the inguinal canal. If it is successfully drawn to the canal then the operation is completed using the classic Petrivalsky orchidopexy method. If the testis is not successfully brought to the inguinal canal because the testicular vessels are too short, then these vessels are cut following bipolar coagulation closure. A further operation is carried out after at least six months.

Results: The testis remained stable in all children undergoing the second operation after at least six months following the closure of the testicular vessels. The testis was brought to the scrotum in one stage. In one child the testis degenerated after it was brought to the scrotum. Post-operative observation is carried out for three months to five years.

Conclusions: Operation of the abdominal testis using laparoscopy in children is safe and has no more complications than with other methods. The Fowler Stephens orchidopexy method, in the case of the testis which cannot be brought to the scrotum in one operation, allows this to be done safely in two stages.
POLYORCHIDISM MAY NOT BE AS RARE AS THOUGHT: HOW VALUABLE IS A COMBINED LAPAROSCOPIC AND INGUINAL EXPLORATION IN A NONPALPABLE TESTIS?

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Polyorchidism has been described as a rare pathology with less than 200 cases reported up to date. In reported locations, only 5% of the supernumerary testis is located retroperitoneally. There are 4 types and type IV is the rarest one which is a complete duplication of the testis, epididymis and vas. We determined 3 patients with polyorchidism in 66 patients with nonpalpable testis (NPT).

Method: Laparoscopic exploration was performed for 72 NPT in 66 patients. Intraabdominal and inguinal exploration findings were recorded.

Results: All patients had both laparoscopic and inguinal exploration except one with testicular agenesis (71 NPTs and 65 patients). By laparoscopic exploration, 23 testes were found in abdomen. In 3 patients, polyorchidism was found. Laparoscopic exploration of these 3 patients showed intraabdominal testis. Testicular pedicle of all these testes was long enough for inguinal orchidopexy. Inguinal explorations showed an associated nubbin testis. All these 3 cases had type IV polyorchidism (one in abdomen, the other one in inguinal region). In two patients, intraabdominal testes had hypoplasia but were in a relatively good size so that orchidopexy was done. Associated inguinal testes in these 2 patients were nubbin and orchiectomy was done. In the third patient, both intraabdominal and inguinal testes were nubbin and orchiectomy was done for both testes. In our study, the rate of polyorchidism was 13% in all cases with intraabdominal testis. The rate was 4.5 % for the patients who had laparoscopic exploration for NPT.

Conclusion: This study may suggest that polyorchidism is not as rare as though, especially in patients having intraabdominal testis. A combined laparoscopic and inguinal exploration should be considered in such patients.
POSTERIOR INTRAURETHRAL CYST; AN UNUSUAL CAUSE OF OBSTRUCTION OF URINARY TRACT IN CHILDREN

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Posterior intraurethral cysts are very rare in male children. Especially when they give a real picture of bladder outlet obstruction.

We present here 3 cases with posterior intraurethral cysts who are of 1, 10, and 12 years old having clear symptoms of urinary tract obstruction. The first one had obstruction which had caused bilateral fifth grade hydroureteronephrosis with trabeculated bladder, probably even from an associated dubious posterior urethral valve. The two other cases had only caused obstruction on the lower urinary tract.

The cases were treated by endoscopic way, breaking and marsupializing when it was possible the roof of the cyst.

All these will be presenting with videos showing the cysts and and the way we treated them.

We need to discuss the cases and the best way to treat them on the future as this was the first time we have encountered this pathology.
LAPAROSCOPIC APPROACH OF HEPATIC HYDATID DOUBLE CYST: INDICATIONS AND LIMITATIONS

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Purpose: Laparoscopic management analysis of a rare condition having potentially severe evolution, seen in pediatric surgical pathology.

Aims: Outlining the optimal surgical approach method of hepatic hydatid double cyst and the laparoscopic method's limitations.

Methods: The patient is a 6 years old girl that presented with two simultaneous giant hepatic hydatid cysts (segments V-VI and VII-VII), having close vicinity to the right branch of portal vein and to hepatic veins; she bennefited from a single stage partial pericystectomy performed laparoscopically.

Results: The procedure had no intraoperative accidents or incidents. Had good postoperative evolution whithout immediate or late complications. Trocars positioning had been adapted to the patient's size and cysts topography.

Conclusion: The laparoscopic treatment is feasible and safe, but is not yet the gold standard for a hepatic hydatid disease due to the mentioned inconveniences.
OUR EXPERIENCES WITH OVARIAN MASSES IN CHILDREN IN THE YEARS 2006-2012

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Introduction: Ovarian masses play a very important role in paediatric surgery now days. The surgical approach is mainly miniinvasive but in some cases laparotomy is needed. There are of course some important questions of differential diagnosis concerning the fact of oncological involvement and the question how to proceed in the cases of ovarian torquations.

Materials and Methods: In our study we have evaluated 214 patients who were treated in our department of paediatric surgery during the years 2006-2012. The average age was 14,71 years, median 15. Main group of patients where admitted into hospital as acute abdomen 80% and only 20% were admitted as elective operational procedures. In 30% of cases of ultrasonography possible ovarian torquation was found, but total of 13% patients had peroperational picture of ovarian torquation. The patients underwent mainly miniinvasive surgery but in some cases laparotomy was performed. The main miniinvasive procedure was marsupialisation in simple ovarian cyst in 60% of cases. As miniinvasive surgery gained traction new diagnostic procedures in the cases of suspicious oncological involvement were needed, multiseptal ovarian masses or suspicious ultrasonographical findings underwent onocological diagnostics (CT, MRI, oncomarcers and etc) before the main surgery. Ovarian torquation war initially treated with adnexetomy and ovariectomy, but lately we perfom detorquation and perform follow up of the girls with MRI. We have also changed our approach in ovarian cyst in newborns

Conclusion: Our approach in the case of ovarian masses changed through the years. In the beginning of the 21th century laparotomy revision was the main surgical approach. With the introduction of miniinvasive surgery our surgical approach has changed, but we had to accept new diagnostical procedures in the case of suspicious ultrasonographaphy or other clinical manifestations.
Introduction: MIS is technically more difficult than ordinary open surgery. At the moment in Europe a standardized training program for pediatric surgeons doesn’t exist. We propose to ESPES members to approve a questionnaire to create structured guidelines for a training program for pediatric surgeons to secure a standard of technical skill qualification in MIS.

Material and methods: A Board of pediatric surgeons experts in MIS have developed a questionnaire to standardize guidelines for laparoscopic training program specially designed for pediatric surgeons. The aim of this questionnaire is that pediatric surgeons have to obtain a valid MIS training following and completing the following 4 steps:

1. Theoretical courses in laparoscopy, retroperitoneoscopy and thoracoscopy
2. Experimental training (to perform at least 10 hours of training on pelvic trainer and 20 hours of training on animal model)
3. Stages for at least 6 months in Europe centers of reference for MIS (with at least > 300 procedures per year)
4. Personal experience (at least 100 procedures as cameraman; 50 basic MIS procedures (hernia repair, varicocele repair, non palpable testis, appendectomy, ovarian cysts) performed as main surgeon helped by an expert tutor.

Results: A validated questionnaire is proposed to all the ESPES members at the 3rd annual ESPES Congress in Marseille to collect their opinions about our proposal, with the aim to create an ESPES structured guidelines training program for MIS for pediatric surgeons. ESPES will release for each applicant an ESPES certification after checking the operative laparoscopic training booklet.

Conclusions: We think that a formalized MIS surgical training will allow trainees to benefit from an effective and standardized training curriculum approved by the European Society of Pediatric Endoscopic Surgeons (ESPES). We propose to ESPES members to approve a questionnaire to create structured guidelines for a MIS training program for pediatric surgeons.
OP048

ASSESSMENT OF ROBOTIC SURGERY IN SMALL CHILDREN

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Aim: robotic assisted minimal invasive surgery (RMIS) is broadly accepted as a new option by adult surgical community. It is actually assessed as a new technology in children. Its feasibility and benefits are still debated by pediatric surgeons. Initial results for pediatric urology are encouraging. Few manuscripts mention the application of RMIS for small children. Our aim was to compare surgical results for patients less than 15 kg with others patients regarding feasibility, safety and limitations.

Methods: we retrospectively reviewed our first 64 consecutive cases over a 5-year period between January 2007 and December 2012 in our surgical pediatric center, including thoracic, gastro-intestinal and urology procedures. Group A (weight less than 15.0 kg) was compared to group B (weight more than 15.0 kg) with a special focus on surgical feasibility, total operative time, procedure completion rate and postoperative course.

Results: group A (28 patients, 10.9 kg) was compared to group B (34 patients, 27.0 kg). The overall procedure completion rate was 94 %, three patients with thoracic procedures from group A were converted to open procedures and one patient from group B to standard laparoscopic mini invasive surgery for ureteric re-implantation because of a camera failure. Mean operative time was respectively for group A and B 191 minutes (range 75-330) and 173 minutes (range 70-390). Postoperative follow-up offered similar results for both groups. Reoperations were required for two and three patients for group A and B respectively.

Conclusion: these data support the safety and feasibility for RMIS in small children. Limitations still exist particularly for thoracoscopic procedures and children less than 5 kg. Advances in smaller instruments should permit the widespread use of such technology for neonatal surgery.
PRELIMINARY EXPERIENCE IN SINGLE INCISION LAPAROSCOPIC SURGERY

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Aims: recent advances in laparoscopic surgery lead to use umbilicus as a unique access to perform all the surgical procedure. We report here our first experience in such approach.

Methods: Twenty-five procedures were performed in the last two years. Patients were ranged from 5 months to 16 years old (median 11 y). Procedures types were cholecystectomy (9), splenectomy (6: total 3, splenic cyst unroofing 2, partial 1), bowel resections (3: Crohn diseases 2, pseudo-inflammatory tumour 1), total nephrectomy (4), pyeloplasty (2), and ovarian cyst (1). In 6 young patients, we used a small Alexis wound retractor® (Applied Biomedical) equipped with a glove, 3 to 4 trocars being inserted in the fingers of the glove. For the others 19 patients, we used Gelport® device in 16 cases and Octoport® device in 3 cases.

Results: Operative median time was 93 mn (from 52 to 195 mn) and patients were discharged after 2 days (from 1 to 12 d). Two procedures were converted to classical multi-trocars laparoscopic approach, and we added one 5 mm trocar during 3 others procedures. We didn't observe any adverse event during the follow up. All parents and old children were happy with the cosmetic result.

Conclusion: This new single access laparoscopic approach, first described in adult surgery, was easily transferred in our hands of paediatric surgeons, even in young children, mainly to removed pathologic abdominal organs. We didn't observed any specific complications or longer operative time than in classical laparoscopic procedures.
SURGICAL TREATMENT OF SPONTANEOUS PNEUMOTHORAX IN ADOLESCENTS

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Objective: Primary spontaneous pneumothorax is a disease of young adults, which often occurs in adolescence. Progressive spread of videothoracoscopy during the last two decades has changed the surgical treatment dramatically. In the present paper the authors analyze a group of patients with spontaneous pneumothorax treated at the Paediatric Surgery Department, Children’s University Hospital in Bratislava.

Materials and methods: A retrospective study of patients with primary pneumothorax, in whom VATS intervention was performed in the period 2008 to 2012. Analysis focuses on preoperative investigations and management, technical details of surgery and subsequent postoperative course.

Results: 30 cases of spontaneous pneumothorax were operated on 21 patients during this time period. In patients with acute manifestation of pneumothorax chest drainage preceded VATS intervention. CT scan was performed afterwards with verification of the pathological process and thoracoscopic resection of the affected part of the lung was performed. In patients with bilateral involvement, contralateral side was operated postponed as an elective operation. Operating findings correlated with CT scan in 28 cases out of 30, operation time range from 32 to 120 minutes, in 10 cases the resection was supplemented by mechanical pleurodesis. The length of chest tube placement was in the range 1 to 14 days. Repeated chest tube placement was required postoperatively because of fluidothorax in two cases, in two cases for persisting air leak had to be subsequently performed thoracotomy.

Conclusion: VATS pulmonary "blebs" resection is the method of choice in the treatment of spontaneous pneumothorax. Apart from the therapeutic procedure VATS enables complete inspection of the pleural cavity, because of preoperative CT scans have not 100% accuracy in identifying all affected areas of the lungs. The group of analyzed patients document some modification of therapeutic algorithm in the reference interval 5 years, although some issues even when confronted with scientific literature remain open.
VIDEO-THORACOSCOPIC SURGERY FOR ENCIRCLING AND SYMPTOMATIC AORTIC ARCH ANOMALIES IN CHILDREN: A RETROSPECTIVE COMPARATIVE STUDY VERSUS THORACOTOMY

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Objectives: Symptomatic AAA require surgery usually by thoracotomy. The development of minimally invasive surgery allows for exclusive video-thoracoscopy (VTS). The objective was to determine the feasibility and the safety of VTS.

Methods: We performed a retrospective comparative analysis of morbi-mortality in 26 children with encircling and symptomatic AAA managed between 1992 and 2011. Surgical approach was VTS in 14 children, thoracotomy in 12 children. The secondary end points were operative duration, hospital length of stay, clinical evolution, and radiologic findings.

Results: No mortality was observed. The morbidity was 21.4% and 25% respectively (p=0.8286): 1 transitory chylothorax, 1 transitory recurrent nerve paresis, 1 Kommerell's diverticulum hemorrhage that have required conversion in VTS group; 1 chylothorax that have required surgery, 1 pneumothorax, 1 transitory Claude Bernard Horner syndrome in thoracotomy group. Mean operative duration was 132.9 and 137 minutes respectively (p=0.0895). Mean hospital length of stay was 5.5 and 23 days respectively (p=0.0136). Persistent minor symptoms rate was 35.7% and 16.7% respectively (p=0.2603), due to tracheomalacia in 6 patients and one minor dysphagia in a patient operated for esophageal atresia. All chest radiographs diagnosed AAA. Esophagogram, performed in 96.2% of patients, diagnosed 96% of the encircling AAA. Complementary cross-sectional and injected imaging was performed in 20 children (76.9%), including 13 MRI and 7 CT with good anatomical diagnosis in all cases.

Conclusions: The feasibility and the safety of VTS in encircling and symptomatic AAA are conditioned by knowing convert at the slightest doubt. Complementary cross-sectional and injected imaging can help to select surgical approach. A long-term evaluation is necessary to compare with sixty years of thoracotomy experience to answer the question of Kommerell's diverticulum resection and reimplantation of left subclavian artery as a primary procedure. In the meantime, children who underwent surgery by VTS must benefit from a monitoring of Kommerell's diverticulum.
LAPAROSCOPIC ADRENALECTOMY IN CHILDREN

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Aim: Laparoscopic surgical procedures are widely used in pediatric surgical practice including the adrenal masses. The nature, margins and invasion of the mass are the limitations. Our experience in laparoscopic adrenalectomy (LA) is presented herein.

Patients and Methods: Medical records of patients managed with LA through June 2005-July 2012 were reviewed. Demographics, preoperative work-up, indications, operative technique, diagnosis and patient outcome were evaluated. All patients were assessed according to our clinical protocol; with ultrasound and computerized tomography (occasionally magnetic resonance), and detailed biochemical - endocrinological evaluation. Only patients with suspected isolated, noninvasive, and nonmetastatic adrenal masses were considered candidates for LA. Babies less than three months of age with cystic adrenal mass (<3 cm) were followed-up and growing lesions on serial imaging were included in study. All adrenalectomies were performed by transperitoneal approach via 3-4 trocars. Patients were discharged once their recovery was satisfactory.

Results: Thirteen patients (10 girls, 3 boys) with a mean age of 77±62.9 months were enrolled in the study. Presenting symptoms were; abdominal pain (3), Cushing’s syndrome (1), hematuria/poliuria(1), hirsitismus (1) and bloody diarrhea (1). Remaining 8 patients were detected incidentally. Lesions varied in size from 2 to 6.5 cm and eight lesions were located in right adrenal gland. Operating time ranged from 75 to 180 minutes. There were no conversions, no per/postoperative complications. None of the patients required additional abdominal incision for specimen extraction. Mean postoperative hospital stay was 37.8 hours (24-72 hrs). Pathologic diagnoses were; adrenal cortical adenoma (1), primary pigmented nodular adrenocortical disease (1), adrenal epithelial tumor (1), localized neuroblastic tumors (10). Mean follow-up was 21.3±29.8 months without mortality, recurrence or metastases.

Conclusion: Laparoscopic adrenalectomy is safe and effective in appropriately selected patients. Detailed evaluation and laparoscopic surgical expertise are required for good results.
Intracorporeal sewing using direct thread (actual) is often demanding, cluttered and often requires a lot of time. This can be changed by using of shaped surgical thread. This means that some of the steps in creating a knot are already ready. We suppose that the contribution of the surgery aid is: a/ constant knotting improving the safety of the first knot b/ time reduction and process simplification in placing the first knot. We compared the length of time required for creating a classical intracorporeal knot with the length of time for creating of intracorporeal knot by using the predefined shape of the thread. We used the simulator, where surgeons with varying degrees of skill were creating knots with both methods. We evaluated the results with the conclusion that the predefined shape of the thread will ensure constant knotting and resulting in the reduction of the time necessary for creating a knot.
MAJOR COMPLICATIONS IN LAPAROSCOPIC SURGERY - AN OBJECTIVE APPROACH

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Introduction: Today more and more laparoscopic procedures are becoming standardised, but there are still many sources of error. While there is a well established literature over complications in laparoscopy, the area of knowledge and prevention of major complications especially in difficult procedures is still under development.

Objectives: Our main objectives were analyzing the contexts associated to major complications in laparoscopy (operation steps and techniques, consequent morbidity and mortality), the pathologies prone to complications when treated laparoscopically and the risk factors for disasters in laparoscopy.

Materials and methods: Between 2000 and 2011, 20772 laparoscopic procedures were performed in the General Surgery Department of Clinical Emergency Hospital "Sf.Ioan". We analyzed the incidence of major complications (intra- and post-operative), the association between complications and patients' conditions and comorbidities, emergency character of the procedures, and surgeon's training level.

Results: The incidence of major complications was 1.34%, while 1.02% required re-intervention (p>0.05). Morbid obesity is significantly associated with postoperative complications (p=0.004), while diabetes mellitus and cardiopulmonary conditions were not associated with major complications in our study group. Emergency procedures and the surgeon's training level don't seem to affect the incidence or severity of complications, but this might be due to case selection and surgical team assignment. Major complications must not be considered in statistical terms, but as singular events to be analyzed particularly.

Conclusions: The low morbidity and mortality in our study confirms the safety of the laparoscopic approach in tertiary centers. Case selection and proper assignment to a surgical team might be efficient measures in order to avoid laparoscopic disasters. Whenever a major complication occurs, the case must be examined individually, in order to avoid recurrence.
REDO LAPAROSCOPIC FUNDOPLICATION: INCIDENCE AND CONTRIBUTING FACTORS

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Aim: To review the rate of laparoscopic redo fundoplication in the paediatric population in one tertiary centre, and to determine the factors that predispose to further surgical intervention.

Methods: Retrospective review of all children under 16 years of age who underwent a laparoscopic Nissen fundoplication within a ten year period (2003-2013). Patients were identified through the hospital’s clinical records database, and information was collected from both the database and patient notes.

Results: A total of 238 procedures were completed in the ten year period reviewed. Of these, 174 (73%) were first procedures while 64 procedures in 47 patients were revisions. Twenty-three (13%) of the 174 patients with the first time operations required a revision. The mean age at time of surgery was 3.55 years in the 151 patients who have not required further surgical intervention. Mean operation time was 100 minutes. Thirty two percent of the patients had neurological co-morbidity. There were 64 fundoplication revisions (on 47 individual patients): 46 were first revisions, 12 second revisions, and 6 had three or more revisions. Their mean age at the time of first operation was 2.45 years. The mean time to first revision was 1.73 years. Average operating time was 108 min with 54% of patients had neurological co-morbidity. Indications for revision included persistence or reoccurrence of GORD symptoms. Findings during the redo operations included complete dehiscence of the previous wrap (60%), partial dehiscence (10%), or intact fundoplication which required tightening (30%).

Conclusion: Patients who required revision of their fundoplication tended to be of younger age at first operation, and were more likely to have neurological co-morbidity. The most common operative finding was unwrapping of the previous fundoplication wrap.
EVALUATION OF THE SINGLE PORT TRANS-UMBILICAL LAPAROSCOPIC ASSISTED APPENDECTOMY FOR NON-COMPLICATED AND PERFORATED APPENDICITIS IN CHILDREN

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Aim: Evaluation of the single port trans-umbilical laparoscopic assisted appendectomy (TULAA) performed in children for non-complicated appendicitis and appendicular peritonitis.

Method: A retrospective cohort study of children operated on using the TULAA technique between 1 January 2008 and 1 January 2013 was performed. TULAA is a minimally invasive surgery using a 10mm single port and a 5mm laparoscopic grasper through a 10mm sidearm viewing telescope. The appendix is exteriorized through the umbilical incision, a conventional appendectomy is then performed extra corporeally. Data collected were: demographics, type of appendicitis, need to convert, operative time, per and postoperative complications. Data are given in median (range).

Results: TULAA was performed in 282 children. Patients were 10.3 years old (1.6; 17.8). There were 233 non-perforated appendicitis (83%) and 49 peritonitis (17%). TULAA completed the procedure in 255 cases (90.5%). Conversion to multiport surgery was required in 26 cases (9%): 14 appendicitis (6%) and 12 peritonitis (24%). Number of added port was: 1 in 15 cases (9 appendicitis and 6 peritonitis) and 2 in 11 cases (5 appendicitis and 6 peritonitis). One conversion to open surgery was needed for peritonitis. Peroperative rupture happened in 8 cases during exteriorization of the appendix. Operative time was 60 minutes (21; 205). Postoperative complications included 1 umbilical wound infection that required debridement under general anaesthesia and 7 intra-abdominal abscesses. The latter complication was treated conservatively in 5 cases, but 2 needed general anaesthesia: 1 for radiological drainage and 1 for a rectotomy. Hospital stay was 2 days (0; 14) in non complicated appendicitis and 5 days (2; 14) in peritonitis.

Conclusion: TULAA is a feasible technique that can be used safely regardless of the perforation status with a high success rate and an excellent cosmetic result. This procedure should be recommended as a first approach in paediatric population.
LAPT IN HIRSCHSPRUNG’S DISEASE: A SAFE, FAST-TRACK PROCEDURE

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Introduction: In the last decade the laparoscopic-assisted endorectal pull-through procedure (LAPT) has become the most popular approach for Hirschsprung disease mainly in centers with laparoscopic expertise. Our study is a retrospective review and analysis of surgical complication with this technique.

Materials and Methods: From January 2001 to December 2012 60 consecutive HD patients (age range 20 days 15 years) were treated with LAPT by the same surgeon. Suction rectal biopsy and contrast enema were routinely performed preoperatively. Patients with TCIA/TCA underwent to previous ileostomy, remaining cases were managed by bowel nursing. The surgery was carried out with 3 operative ports; colon biopsies were taken at different levels for intraoperative histochemical and histological studies to define the extension of the disease. The mesocolon was divided with Ligasure®, the pull-through carried under laparoscopic control. Operative time ranged from 240 minutes (first 10 cases) to 120 minutes (remaining series). LAPT was classified as fast-track procedure.

Results: 28/60 cases (46.6%) were younger than 6 months. The cases were: 5 ultrashort segment, 41 rectosigmoid segment, 10 long segment, 2 TCA, 2 TCIA and 6 NID typeB d. All the procedures were carried out laparoscopically without any intraoperative complication even in patients with intestinal stoma. No blood transfusion was required and postoperative analgesia was necessary for 24h. Bowel opening presented at 24-48 hours, oral intake started after 48 hours, the hospital stay ranged between 5 and 7 days.

2/60 cases presented surgical complication: 1 histological misdiagnosis (rectosigmoid vs TCA) and 1 omental hernia through a port site. 1 case (1.66%) required a redo surgery.

Conclusion: LAPT can be safely performed in pediatric population, by expert surgeons with very low surgical complication rate even in intestinal stoma carriers. The painless and uneventful postoperative course allow us to consider LAPT a fast-track procedure.
SILS PROCEDURES IN PAEDIATRIC SURGERY – OUR EXPERIENCES IN 109 PATIENTS.
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Aim: is to present our results of SILS operative technique in-group consisting of 109 patients which were performed since February 2011 until March 2013.

Methods: We performed surgery with infraumbilicali skin incision, vertical liena alba opening and SILS port insertion. We performed SILS appendectomy using 3D Laparoscopy in one patient.

Results: Range of our operations involved appendectomy, cholecystectomy, ovariectomy, ovarian cyst marsupialisation, adnexectomy, Nissen fundoplication, splenectomy, concomitant cholecystectomy and splenectomy, biopsies of abdominal tumors, varicocele and abdominal cavity inspection.

Conclusions: For experienced laparoscopic surgeons is the SILS performing easier and there is evidence with appropriate training in rapid decrease in operative times as surgeons acquire experience with the technique. If the multiple procedures are performed at the same time, patients also undergo a solitary hospital admission, preoperative evaluation and anesthesia exposure.
COMPARATIVE ANALYSIS BETWEEN “PULL” AND “PUSH” TECHNIQUE IN PERCUTANEOUS ENDOSCOPIC GASTROSTOMIES

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Aim: To analyze “Push” and “Pull” techniques in Percutaneous Endoscopic Gastrostomies (PEG). Compare results using both techniques.

Material and Methods: A retrospective cohort study was realized analyzing PEG since 2002 using “Push” and “Pull” endoscopic techniques. Age, weight, diagnosis, clinical follow-up, operation time and complications were researched.

Results: 142 PEG were analyzed, 72 of them were placed using “Pull” and 70 using “Push” technique. Mean age of placement was 8.4 years in “Pull” group and 5.8 years in “Push” group (p<0.05); thirty percent of the patient were below 24 months of age in “Pull” technique compared with forty percent in “Push” technique. There were significant differences on mean weight between both techniques (Pull: 16.3 Push: 12.5 p<0.05).

Surgical time was significant lower using “Push” (10.1 minutes) against using “Pull” (18.3). (p<0.001)

Mild or sever infection was found in 13% of the patients on “Pull” group and in 6% patients on “Push” group (p<0.05). Severe complications were presented in 25% using “pull” and in 20% using “push”. There was one patient who died due to complications of PEG placement using “Pull” technique. No differences related to oral alimentation, weight gain or inpatient stay were found between both groups.

Conclusions: Both techniques are efficient and secure in the management of swallowing disorders and chronic malnutrition. Push technique allows an early nutritional management in small children and it’s technically faster. Less infection that requires intravenous antibiotic therapy was found using “Push” technique. Use of “Push” technique has increased PEG placement in our hospital in the last years.
A TECHNIQUE FOR MINIMALLY INVASIVE GASTROSTOMY INSERTION IN CHILDREN USING AN INTRACORPOREAL PURSE-STRING ANCHORING HITCH SUTURE

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Aims: Insertion of gastrostomy is a common paediatric procedure. Laparoscopic gastrostomy is an alternative method to open or PEG. We describe our experience with a modified technique using a laparoscopically sited purse-string suture.

Methods: Data was prospectively collected between 2003-2013.

Technique: A single purse-string is placed laparoscopically using a 30cm suture and taking three large bites of gastric wall. An abdominal wall incision and a Peel-Away® introducer set are used to perform a standard Seldinger insertion of a gastrostomy device into a partially inflated stomach. A pair of fine forceps are inserted through the abdominal wall alongside the gastrostomy and the purse-string suture ends are pulled extra-corporally. The suture is hand-tied and hitched around the button or flange of the device.

Results: 43 cases included (7 stand-alone, 36 concomitant with fundoplication). Type of gastrostomy was Mic-Key/Mini button in 16% (7/43) and Mic-G tube in 84% (36/43). Median patient age was 6.9 years (range 2m -16yrs), 18 patients were ≤ 2yrs. Co-morbidities were: cystic fibrosis (14), neurological impairment (13), chronic renal failure (14), others (2). Median time for placement of purse-string suture was 12.8 minutes (range 10-16), and median total time for complete gastrostomy insertion was 38.7 minutes (range 20-62). Two intra-operative complications were encountered: Perforation of posterior stomach wall (1), breakage of purse-string suture (1). Postoperatively one patient with neurological and renal impairment developed anaemia and bloody aspirates. OGD was normal, patient recovered with conservative management.

Conclusion: This is a safe and effective technique for the secure and precise placement of gastrostomy button/balloon devices. It is particularly advantageous in patients who are undergoing concurrent minimally invasive procedures. It may provide a cost benefit over established techniques.
Purpose: Laparoscopic Nissen fundoplication (LNF) is the "gold standard" technique when surgical treatment is indicated in pediatric patients with gastroesophageal reflux disease (GERD). The evaluation of long-term results and postoperative quality of life of this patients is poorly described in literature. The aim of this study was to evaluate the long-term results and the quality of life of patients treated consequently by a single surgeon from January 2005 to December 2011.

Methods: We report the results of long-term outcome in 53 consecutive patients (males 57% and females 43%), who underwent LNF surgery from January 2005 to December 2011. The patients had a clinical follow-up of 12 months up to 6 years. All the patients were invited, during a clinical follow-up or by phone to answer to a questionnaire on Pediatric Gastrointestinal Symptoms based on B-Rome III criteria created to facilitate the diagnosis of Functional Gastrointestinal Disorders in children and adolescents. We therefore obtained 50 complete questionnaires out of 53 requested.

Results: In our series, 47 out of 50 (94%) patients had completely recovered; 8 out of 50 (16%) patients had a mild persistent GER; 6 out of 50 (12%) patients referred a mild dysphagia. The cosmetic results was good in 49 out of 50 (98%) patients. The quality of life was good in 47 out of 50 (94%) patients.

Conclusions: This study shows that patients treated with LNF has good long-term clinical results and a good quality of life. The B-RomeIII questionnaire seems to be effective in terms of evaluation of the quality of life of this patient and possibly in all patients who underwent upper gastrointestinal surgery. The questionnaire formula avoids unpleasant instrumental tests and is, in our experience well tolerant by patients and their parents.
NEAR- FATAL VENOUS AIR EMBOLISM DURING DIAGNOSTIC COLONOSCOPY IN AN INFANT WITH COMPLEX ANORECTAL MALFORMATION – CASE REPORT AND LITERATURE REVIEW

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Aims: Clinically significant gas embolism is a rare but potentially fatal complication in endoscopic surgery. A case of foudroyant venous air embolism during blind loop colonoscopy in a 9-month old infant with anal atresia and patent foramen ovale is presented. In order to describe risk factors that contributed to severe gas/air embolism in children during gastrointestinal and abdominal endoscopy and endoscopic surgery we reviewed all reports over the last more than 4 decades.


Results: Among the nine described case reports there were three deaths, all occurring during endoscopy of a blind small bowel loop (Kasai/ Roux-en-Y) using air; a forth case of small bowel endoscopy with air was near-fatal. In total, air was the cause for severe gas embolism in eight out of the nine case reports in endoscopy. In four reports non-lethal gas embolisms occurred in the process of gaining umbilical access in laparoscopic surgery. In six of the nine reported cases patent foramen ovale/ air in left ventricle was assessed during or after resuscitation.

Discussion and Conclusions: Our report of an infant suffering severe venous air embolism during a diagnostic colonoscopy is the first described. Risk factors like patent foramen ovale/ atrial septum defects, blind loop configuration, veress needle, vascular injury and the difference between air and carbon dioxide with regard to their pathophysiology are described. Patients with atrial septum defects are at special risk of fatal transmission of air/ gas embolism. We strongly recommend the use of carbon dioxide (not air) in intestinal endoscopy for patients with atrial septum defects or unclear cardial status; especially in endoscopy of blind loops.
PAEDIATRIC ROBOTIC HEPATOBLIARY SURGERY: THE FIRST 5 YEARS EXPERIENCE FROM A SINGLE CENTRE

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Aim of the study: The benefits of laparoscopic surgery were realised early in hepatobiliary surgery. Time has seen an increasing uptake and advancement of its use from simple to more complex procedures. The development of robotic surgical systems have been able to facilitate surgeons capability to undertake complex procedures. We present our first five years’ experience of using robot-assistance to establish our ability to provide minimally invasive surgery to treat children with simple to complex hepatobiliary conditions.

Methods: Since November 2008, 62 children have undergone robotic assisted minimally invasive hepatobiliary surgery in our unit: 29 choledochal cyst excisions and hepaticojejunostomy (mean age 5.2, range 0.3-15.9), 26 cholecystectomies (mean age 12.5, range 5.0-18.4), 6 liver cyst resections (mean age 5.0, range 0.8-11.50) and 1 bile duct exploration to remove a stent duct (age 8.9).

Main results: 23 of the 29 cases of choledochal cyst excision and hepaticojejunostomy were completed successfully with robotic assistance. Six patients were converted to an open procedure because of anatomical concerns (5) or technical reasons (1). One child developed an anastomotic stricture requiring an open revision of the hepaticojejunostomy. Only 1 of the 26 cholecystectomies required conversion to an open procedure because of extensive adhesions from previous abdominal surgery. 5 of the 6 liver cysts were successfully treated with complete enucleation, with only one requiring conversion to an open procedure. Robotic assistance also enabled a minimally invasive bile duct exploration to be performed to retrieve a bile duct stent.

Conclusion: The first five years’ experience of using robotic assistance for minimally invasive hepatobiliary surgery in our unit has seen its safe introduction and the progression of its successful application from simple to complex procedures.
MINIMAL INVASIVE SPLENECTOMY, A JOURNEY FROM TRADITIONAL LAPAROSCOPY TO SILS. INITIAL CASE SERIES REVIEW

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Aim of study: Currently, minimal invasive splenectomy (MIS) is carried out in most paediatric surgery centres. Our institute is practising the use of single incision laparoscopic splenectomy (SILS) replacing the traditional multiple ports splenectomy. This article is a review of our early experience with SILS in comparison with multi-port splenectomy in paediatric-age group.

Method: Retrospective case note review was carried out of all MIS & SILS splenectomies performed between September 2010 and February 2013 (30-months), which was carried out by one surgical team in two different tertiary centres. Patients’ demographic details, haematology disorders, operative time, hospital stay and complications were collected and analysed.

Results: Thirteen patients (7 boys and 6 girls) with age range 5-13 years. All patients have haematological disorders except one has multiple splenic cysts. ASA grade was 2-3. Estimated weight of spleen by USS was 500 grams. 7 SILS splenectomy procedures and 6 multiple ports have been carried out electively. Other surgical procedures were done simultaneously including: 3 cholecystectomies, 4 liver biopsies and 1 appendicectomy. None of SILS nor MIS procedures were converted to multi-port, however extra port was used twice. Mean operative time was 174 minutes with range 75 – 300 minutes. Post surgery, all patients received PCA. Average hospital stay was 6 days with range 4 - 7 days. All patients had pre and post-operative routine blood tests. All patients continue to have haematology and surgical follow-up. No mortality and no significant morbidity have been reported.

Conclusions: Recently, SILS has gained popularity in paediatric-age group for MIS procedures. SILS proves to be safe and feasible. There is no significant difference in outcome between multiple ports and SILS procedures. SILS has superior cosmetic outcome.
A TRAINING MODEL IN THORACOSCOPIC SURGERY FOR ESOPHAGEAL ATRESIA

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Introduction: Through time, the training and development of technical skills have been performed in the operating room. Clinical training using simulated environments may improve the efficiency and safety of laparoscopic surgery. We present a training model in laparoscopic surgery for esophageal atresia (EA).

Material and methods: To confine the training model, we divide it in three parts: A) Video surgery equipment. A video endoscopic unit with an image integrated module, three 3.5mm trocar, one 5.5 mm trocar, 3mm instruments. B) A doll is used, which simulated a term newborn having a longitudinal anterior and posterior opening of 10 cms long and 2cms wide, through which a separator is introduced. C). Rabbit tissue or synthetic material are used. We proceed to place the videosurgery unit just like a real procedure. Placing the optic, visualizes the first image of esophagus and trachea. Afterwards, performing a meticulous dissection the separation of the tracheoesophagean partition is done, a suture thread 5/0 is placed around the esophagus, making an intracorporeal knot. The same surgical technique, end to end anastomosis is performed.

Conclusion: Since the beginning of laparoscopy, the use of simulators have proven a great potential for training and acquiring skills, shortening the learning curve and the early use in real procedures. This model which perfectly simulates the environment of an EA has been used by pediatric surgeons in the unit, allowing them to acquire skills that could then be applied during surgery.
TEACHING PAEDIATRIC SURGERY USING MEDICAL SIMULATION: CURRENT SITUATION IN FRANCE IN 2013

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Introduction: Paediatric surgery is a generalist surgery, and deals with rare pathologies (frequency from 1/2000 to 1/5000). Effective skills acquisition in the operating room is becoming increasingly difficult with larger numbers of residents to be trained, and the existing system still lacks well-defined structured training programs.

Aims of the study: The aim of this study was to determine if medical or surgical simulation is used to teach paediatric surgery in France.

Method: Paediatric surgery residents, and young practitioners working in paediatric surgery units in France were requested to fill in a questionnaire sent by e-mail. This questionnaire was sent to all recipients of the ACPF mailing list (Association des Chirurgiens Pédiatres en Formation).

Results: Out of 128 paediatric surgeons having received the questionnaire, only 48 answered, who were working in 19 different centers. Simulation had been compulsory for 7 of these surgeons. Simple operative skills using surgical simulation were taught to 27 surgeons. Three people had practiced more than 10 hours, and 1 more than 20 hours. More elaborated virtual reality was used by 21 surgeons, 5 had practiced more than 10 hours, and 1 more than 20 hours. 6 residents had taken part in high fidelity simulation sessions.

Conclusion: Training programs using surgical simulation are not much developed. It seems that paediatric surgery residents are not much interested in training by surgical simulation. We believe that a compulsory program should be developed, starting at undergraduate study level.
LAPAROSCOPIC HERNIORRHAPHY IN CHILDREN WITH ACUTE INFLAMMATORY DISEASES OF THE ABDOMINAL CAVITY

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Background: The presence of an acute inflammatory and destructive process in the abdominal cavity is commonly a contraindication to the one-stage laparoscopic herniorrhaphy.

Material and methods: From 2010 to 2012 240 children, 5-14 years of age, were admitted to hospital with a clinical picture of acute abdomen and all of them were urgently operated on. During laparoscopy in 29 patients (18 boys and 11 girls) a persisted processus vaginalis (PPV) was found: unilateral in 25 cases and bilateral in 4 cases. In 19 children from this group destructive forms of acute appendicitis (in 6 cases complicated by local peritonitis) were diagnosed as well as 5 - pelvioperitonitis, 4 - acute mesenteric lymphadenitis, and 1 - ovarian apoplexy. All patients underwent simultaneous procedures - both inflammatory focus sanation and subcutaneous endo-assisted ligation (SEAL) of PPV.

Results: There was no conversion in any case. When the inflammatory focus was reorganized (appendectomy, ovarian resection, etc.) SEAL was performed according to our modification. SEAL duration was not more than 6 minutes for unilateral hernia and 9 minutes for bilateral. Postoperatively, all children received a standard therapy. In all cases the postoperative period was favorable. Complications in abdominal cavity or inguinal canals were not reported. Ultrasound examination and blood tests confirmed a complete relief of the inflammatory process. All patients were discharged with full recovery.

Conclusion: Simultaneous laparoscopic herniorrhaphy in children with acute inflammation in the abdominal cavity does not increase the risk of postoperative complications.
**LAPAROSCOPIC AND THORACOSCOPIC SURGERY FOR SELECTIVE DIAPHRAGMATIC CONGENITAL DEFECTS**

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**Aim:** Congenital diaphragmatic defects are rare and clinically heterogeneous malformations, ranging from neonatal emergent conditions to asymptomatic accidental findings in childhood. Aim of our retrospective study was to investigate results and complications of laparoscopic and thoracoscopic corrective surgery in the last ten years.

**Materials and methods:** In the period 2004-2013, we treated, with minimally invasive surgical approach, eight patients affected by postero-lateral diaphragmatic hernia (LDH, 1 case), anterior diaphragmatic hernia (ADH, 5 cases), and diaphragmatic *eventration* (DE, 2 cases). Comorbidities were present in 4 cases (trisomy 18, cystic fibrosis, gastro-esophageal reflux, pyeloureteral stenosis). Prenatal diagnosis was possible in one case, otherwise, diagnosis was obtained at a mean age of 30.4 months. Postnatal diagnosis was incidental in 7 cases (chest X-ray for upper respiratory infections in 6 cases, follow up for cystic fibrosis in 1 case). Acute presentation with sudden dyspnea was observed only in 1 case.

**Results:** Five patients (5 ADH) underwent laparoscopy, three (2 DE, 1 LDH) underwent thoracoscopy. Mean length of hospital stay was 6.9 days (laparoscopy 7.8, thoracoscopy 5.3), mean length of surgery was 112.5 minutes (laparoscopy 122, thoracoscopy 96.7), mean length of antibiotic therapy was 3.3 days (laparoscopy 4.6, thoracoscopy 1). Post-operative complications (intrathoracic fluid collection, late pleural empyema, wound dehiscence) occurred in 3 cases who required surgical treatment.

**Conclusions:** Minimally invasive surgical treatment for diaphragmatic malformations is a current and effective approach, especially for asymptomatic and late presenting patients. Incidental and benign presentation of diaphragmatic defects should not reduce surgeon's attention to the possible complications, especially in cases with associated comorbidities.
Aims: We report two patients with syndromes involving pleura in which the thoracoscopic injection of fibrin glue was effective.

Methods: A fifteen year-old boy affected by Marfan's syndrome was admitted for recurrent bilateral pneumothorax (PNX). Left PNX was treated with thoracic drainage only. The right PNX was initially treated with thoracic drainage, but it relapsed. A thoracoscopic pleurodesis and pulmonary bullae excision were then performed. It relapsed again eight months later. A second thoracoscopy was performed with pleurodesis and fibrin glue injection.

The second case is an eleven year-old girl who came to our attention for Gorham Stout syndrome with recurrent chylothorax in which conservative treatment, intrapleural injection of OK 432, pleurodesis and thoracic duct ligation were not successful. A thoracoscopic infiltration of the parietal pleura with fibrin glue was performed.

Results: In the first case the thoracic drainage was removed eight days after procedure. Currently the patient is in good health.

In the second case, the thoracic drainage was removed on the second post-operative day and the low fat diet suspended on the fifth day. She was discharged eight days after the procedure. Currently she assumes pamidronate every 6 weeks and bisphosphonate once a month: clinical and radiological features improved and the chylothorax resolved.

Conclusion: Therapeutic strategies of recurrent PNX and chylothorax in complex patients often require several medical and invasive procedures. The thoracoscopic injection of fibrin sealants is currently controversial: although our experience is minimal, the use of fibrin glue with minimally invasive approach seems promising in this kind of patients.
POST OPERATIVE CHEST X RAY AFTER THORACOSCOPIC RESECTION FOR PULMONARY MALFORMATION: USELESS?

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Introduction: Surgery for pulmonary malformation can be complicated by ventilatory troubles, residual pneumothorax and pleural effusion. The aim of the study was to collect the post-operative radiographic findings looking for a correlation with the pulmonary status after surgery.

Patients and method: Chest x ray at day post operative 2 (DPO 2) and 30 (DPO 30) of patients operated on for thoracoscopic pulmonary resection related to a congenital malformation between 2007 and 2012 were retrospectively reviewed. Only patients with congenital lobar emphysema (CLE), congenital cystic adenomatoid malformation (CCAM) and Intra lobar sequestration (ILS) were included. A post-operative finding’s classification in 4 grades of gravity (0,1,2 et 3) was built.

Results: 55 patients were operated on, 35 were included (26 CCAM, 8 CLE et 1 ILS). At DPO 2, 6 patients have lesions grade 0 and 1, 26 patients grade 2 and 3 patients grade 3. At DPO 30, 24 patients have stable grade 2 lesions (68.6%), while 10 were downgrading (28.6%) and only one upgrading (2.8%). Mean hospital stay was not different between patients classified in grade 0,1 or 2 (3,4 and 3 days respectively). Only patients classified as grade 3 on DPO2 have a longer hospital stay (8 days). With a median follow up of 23.5 months, 4 children (3 grade 2 and 1 grade 3) have a medical treatment for an asthma or recurrent bronchitis (11.4%).

Conclusions: Post-operative chest x ray is rarely normal after thoracoscopic pulmonary resection for pulmonary malformation. In two third of cases, it doesn’t improve at DPO 30. However, the mean hospital stay for grade 0,1 or 2 are quite similar meaning that the chest x ray in not an indication for prolonged hospital stay. Furthermore, lesions are not predictive of post-operative medical treatment requirement.
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ENDOSCOPIC MANAGEMENT OF RECURRENT TRACHEOESOPHAGEAL FISTULA WITH TRICHLOROACETIC ACID CHEMOCAUTERIZATION: A PRELIMINARY REPORT

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Objective: Open repair with a second thoracotomy is technically challenging and has a high risk of complications for the treatment of a recurrent tracheoesophageal fistula (RTEF). Therefore, less invasive endoscopic techniques have been developed. We report our initial experience with trichloroacetic acid chemocauterization for recurrent trachea-esophageal fistula by endoscopy.

Methods: Two patients who had an open repair with thoracotomy for congenital tracheoesophageal fistula and were diagnosed with large RTEF. Rigid ventilating bronchoscopy with telescopic magnification was used to evaluate and manage the RTEF. After identification of the fistula opening, a 50% TCA-soaked small cotton ball was applied in the opening 3 times during each session, in day surgery.

Results: The mean number of procedures was 2, and the fistulae were closed in both cases. Closure of the fistula was confirmed by esophagogram and/or bronchoscopy. There were no postoperative complications.

Conclusion: The results of this initial experience showed that chemocauterization with TCA can be safe and effective for the management of RTEF.
PUTATIVE CRITERIA FOR PREDICTING SPONTANEOUS REGRESSION OF PRENATALLY DIAGNOSED THORACO-ABDOMINAL CYSTIC LESIONS

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Purpose: Cystic lesions are common findings during prenatal ultrasonography but their pre- and post-natal prognosis is difficult to establish since some regress spontaneously. The purpose of this study was to identify putative criteria to predict regression of partially or completely cystic lesions detected by prenatal ultrasound.

Methods: Prenatal ultrasound features of thoracic or abdominal cystic lesions were retrospectively analyzed. Ovarian and urological lesions were not included in this study.

Results: A total of 57 cystic lesions were studied. Thirty-six lesions including 10 abdominal (43.5%) and 26 thoracic (76.5%) lesions required surgical resection (p=0.02). Ten persistent lesions after birth were only monitored. Eleven lesions including 8 abdominal (34.7%) and 3 thoracic (8.8%) regressed prenatally (p=0.02). Regressing abdominal lesions consistently presented as solitary lesions with a homogenous aspect. Only one abdominal lesion showed a multilobulated aspect. Two regressing thoracic lesions were purely cystic and one presented a heterogeneous aspect.

Conclusion: Regression of cystic lesions detected by prenatal ultrasound scan was more likely for lesions in abdominal (mainly adrenal or splenic lesions) than thoracic locations. The likelihood of regression was highest for purely cystic abdominal lesions.
LAPAROSCOPIC SPLENECTOMY FOR TUMOR IN CHILDREN: REPORT OF AN EXCEPTIONAL ETIOLOGY. DO YOU KNOW SANT?

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Aims: Solid tumors of the spleen are extremely rare in children. Sclerosing angiomatoid nodular transformation of the spleen (SANT) is an exceptional etiology.

Case report: A 14-years old girl experienced asthenia and was treated for urinary tract infection. She was addressed following sonographic finding of a 70 mm in diameter, heterogeneous, vascularized splenic solid tumor. Biology has found anemia. CT and MRI confirmed enhancement of the central portion after injection. Several hypotheses have been advanced (vascular malformation? hamartoma?) but malignancy could not be ruled out. Laparoscopic total splenectomy was undertaken, the spleen was then placed in a retrieval bag and extracted without fragmentation by a suprapubic incision. Follow-up was uneventful. Histology has suggested the diagnosis of sclerosing angiomatoid nodular transformation of the spleen (SANT). The decline since the intervention is 9 months.

Discussion: Described for the first time by Martel in 2004, SANT is exceptional. 97 cases have been detailed by Falk in 2012 and only 3 cases involved children. The lesion is often asymptomatic and discovered incidentally by imaging, more rarely symptomatic. Some MRI characteristics have been described. Diagnostic biopsy may allow avoiding surgery, but exposes to complications (intraperitoneal bleeding, swarming if malignancy). Laparoscopic splenectomy is not contraindicated but it seems preferable, to not fragment the spleen and to extract it via a cosmetic incision in an extraction bag. In case of non-central tumors partial splenectomy is possible without taking a risk of tumor rupture. Differential diagnoses are vascular lesions of the spleen: hemangioma, coastal cell angioma, hemangioendothelioma and inflammatory myofibroblastic tumor. Immuno-histochemical characteristics are helpful.

Conclusion: SANT should be kept in mind in children in cases of solid vascular splenic tumors. Imaging may be suggestive but is rarely sufficient to avoid splenectomy. Laparoscopic splenectomy, respecting the rules of oncological surgery, led to the diagnosis and brings healing.
TECHNICAL TRICK FOR DIAPHRAGMATIC PLICATION IN CONGENITAL DIAPHRAGMATIC EVENTRATIONS: THE CLAMP

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Background: Congenital diaphragmatic eventration needs a plication when it has an impact on respiratory function. During the last 10 years it's done by thoracoscopy for reducing the surgical morbidity. Since then new tricks are surch to reach the best flattening of the diaphragm. We report 5 cases of plication using vascular clamp as technical tricks.

Material and Method: 5 patients, 1 girl and 4 boys, from 1 day to 15 months underwent thorascopic diaphragmatic plication for congenital diaphragmatic eventration. Selective ventilation was performed for 3 cases, and bipulmonary ventilation for 2 cases. A low insufflation allowed lung collapse. Diaphragmatic plication was done with four 5mm ports. The diaphragm was pinched by a clamp, introduced in the more distal ports hole, up to its base and complete abdominal viscera reintegration. A first hand-sew U-stitches suture was done at the base. Endostapler sac resection was done if the sac was too big. Then the sac was pulled and fixed in the lateral recess. A chest drain was placed at the end of the procedure.

Results: 2 had a sac resection with endostapler. The 5 were extubated immediately after surgery. Chest drains were removed between the 2nd and the 6th post-operative day. No additional thoracic surgery was needed. Chest radiographs showed good flattening of the diaphragm.

Conclusion: The clamp was good trick to facilitate diaphragmatic plication with a good tension and no additional surgery, even in newborns.
THORACOSCOPIC MANAGEMENT OF CONGENITAL DIAPHRAGMATIC HERNIA: SINGLE CENTER EXPERIENCE

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Introduction: Minimally invasive surgery is more used in pediatric surgery and thoracoscopy is now the popular management of congenital diaphragmatic hernia. Closing method (diaphragmatic plication, suture, patch repair) is dependant of operative constatations. Necessary learning for new technical method is difficult especially as pathology is rare. We made the choice to evaluate our results, after 4 years experience.

Materials and methods: Retrospective study: 11 children (4 girls, 7 boys) with congenital diaphragmatic hernia (9 left, 2 right) managed by thoracoscopy since 2009.

Perinatal and surgical data, comparison with anterior group managed by laparotomy and review of the literature.

Results: On arterial blood gases, acid pH was 7,18 and pCO2 was 68,4 mmHg. Length of intubation was 16 days (High Frequency Oscillation during 7 days, Synchronised Intermittent Mandatory Ventilation during 9 days). 7 children received exogenous surfactant, 9 received NO (during 16 days). Length of hospitalization in reanitary ward was 30 days.

7 children were managed by direct suture and 4 had patch repair (Gore-Tex®). We noted 3 recurrence: 2 with patch and 1 suture. We also had 2 surgical management for occlusive syndrome.

Conclusion: In comparison to our anterior experience, thoracoscopic management of congenital diaphragmatic hernia led to more surgical complications, specially recurrence. However, mortality and length of hospitalization didn’t increase. We emphazise difficulties and our choice to manage by thoracoscopy this children.
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