

LONDON 2020

CONFERENCE PROGRAMME

The 20th Annual Meeting of the British Association of Paediatric
Endoscopic Surgeons

Overview.

VIRTUAL SESSION 1

THURSDAY NOVEMBER 5th 09:30-12:30 (LONDON, UK)

- 2020 Azad Najmaldin Lecture
- Virtual Free Paper Session 1 (General Surgery)
- Virtual Free Paper Session 1 (General Surgery)
- MIS Approaches: Paediatric Interventional Radiology

VIRTUAL SESSION 2

FRIDAY NOVEMBER 6th 09:30-12:30 (LONDON, UK)

- Virtual Free Paper Session 3 (General Surgery)
- 2020 Karl Storz Lecture
- State of the Art 2020: Industry Talks
- Virtual Free Paper Session 4 (General Surgery & Urology)

ONLINE POSTERS

DURING SESSION BREAKS AND AT WWW.BAPES.ORG.UK

Virtual Session 1.

THURSDAY NOVEMBER 5th 09:30-12:30 (LONDON, UK)

09:30-09:45: PRESIDENT'S WELCOME ADDRESS

Simon Clarke (BAPES President)

09.45-10:15: 2020 AZAD NAJMALDIN LECTURE



Mr Fraser Munroe (Edinburgh)

Introduced by Simon Clarke (BAPES President)

Fraser Munro has been a consultant paediatric surgeon at the Royal Hospital for Sick Children in Edinburgh since 1997. He has been involved in minimal access surgery throughout that time. This has included some of the early UK experience with MAS for Hirschsprung's, congenital lung malformations and oesophageal atresia. His subject is the experience with MAS for oesophageal atresia in Edinburgh.

10.20-10:50: VIRTUAL FREE PAPER SESSION 1 (GENERAL SURGERY)

Chairs: Naved Alizai (Leeds) & Shabnam Parker (London – St George's)

1.1 Thoracoscopic resection of paraspinal tumours: a single centre review. Jonathan Ducey, Paul J Farrelly, Ross J Craigie. Royal Manchester Children's Hospital, Manchester, UK

AIMS

We present a 3 year review of paraspinal thoracic tumour resections from our institution. We aim to present our thoracoscopic technique and demonstrate key features in successful patient selection for a thoracoscopic approach.

METHODS

Cases of paraspinal thoracic tumour resections from a 3 year period (2017-2020) were reviewed retrospectively in our institution. Comparisons of tumour dimensions on pre-operative imaging were correlated with operative modality and successful thoracoscopic approach.

RESULTS

Nine tumour resections were performed over the review period. Four cases were performed primarily and successfully with a thoracoscopic approach. One case required a conversion to thoracotomy due close association between the tumour and azygous vein. Successful thoracoscopic cases were smaller (median largest dimension 43.5mm vs. 87.5mm) and more likely to be right sided. There were no complications in either group, including pneumothorax/persistent air leak, haemothorax or wound infection/dehiscence.

CONCLUSIONS

Thoracoscopic resection is a safe approach for intra-thoracic paraspinal tumours. Patient selection according to tumour size and anatomy is of paramount importance. As always, appropriate safe thresholds for continued thoracoscopic dissection should be considered throughout.

1.2 Mid and longterm results of modified percutaneous treatment of inguinal hernia in boys. María José Rosell Echevarría, Raquel Angélica Hernández Rodríguez, Eduardo Luis Pérez-Etchepare Figueroa, Mario Alberto Gómez. Hospital Universitario Nuestra Señora de Candelaria, Santa Cruz de Tenerife, Spain

AIMS

Minimally invasive treatment of inguinal hernia is gaining popularity among pediatric surgeons. We present our experience in the addition of a 5mm work channel pleuroscope to the percutaneous technique for indirect inguinal hernia repair.

METHODS

Retrospective series of boys with inguinal hernia operated between february 2017 and december 2019. A 5mm-0° pleuroscope with a 3.5mm work channel through transumbilical port and an epidural 20G needle are used to perform a percutaneous suture of the internal inguinal orifice with poliester 3/0, with the aid of a 3.5mm, 36cm long Maryland dissector to approach the tissues. Contralateral peritoneo-vaginal persistence detected intraoperatively were repaired in the same act.

RESULTS

375 percutaneous repairs in 288 boys were performed: 201 unilateral, 87 bilateral. 17 cases (19.5%) had a preoperative diagnosis of unilateral hernia. Average age was 2 years (2 weeks-13 years). Mean operative time was 15 minutes (6-50min) in unilateral repair, and 27 (14-80min) in bilateral repair. We had 1 early recurrence in a 2.500gr baby who was successfully reoperated using the same technique. We believe this was a consequence of including a newborn at the beginning of our experience. 2 epigastric vessel lesion resolved with external compression. Follow-up was 1-36 months. 2 hernias were incidentally diagnosed during laparoscopic pyloromyotomy.

CONCLUSIONS

Using a pleuroscope with work channel avoids additional ports in percutaneous inguinal hernia repair, providing excellent functional results, without visible scars, and minimizes manipulation of spermatic cord. Laparoscopy allows treatment of previously undiagnosed defects in the same surgery.

1.3 Single port treatment of epigastric hernias with the use of a pleuroscope. María José Rosell Echevarría, Raquel Angélica Hernández Rodríguez, Raquel Angélica Hernández Rodríguez, Eduardo Luis Pérez-Etchepare Figueroa, Mario Alberto Gómez Culebras. Hospital Universitario Nuestra Señora de Candelaria, Santa Cruz de Tenerife, Spain

AIMS

Traditional epigastric hernia repair involves an incision on the abdominal wall, dissection of the defect and simple suture. We describe our experience with the single port laparoscopic repair of epigastric hernias, without visible scars.

METHODS

Retrospective series of epigastric hernias repaired in a 12 month period using single port laparoscopic technique. 5mm pleuroscope with 3.5mm work channel is used to visualize the defect and to introduce 36mm long maryland dissector and endoscopic scissors. Preperitoneal fat is dissected until adequate exposure of the defect is achieved. Through a single small puncture over the epigastric hernia, both ends of a double needle 3/0 polyester are passed sequentially into the abdomen ensuring the defect is located in the middle of both ends. An extracorporeal Roeder knot is made through the trocar and adjusted under direct vision, until proper closure of the defect.

RESULTS

16 epigastric hernias in 12 patients were repaired in 2018. Mean surgical time was 14 minutes (12-22 minutes). 4 cases had double epigastric hernias. 12 patients underwent simultaneous umbilical hernia repair. There were no intraoperative or postoperative complications. All patients were discharged home the same day. No

recurrence was detected after a mean follow up was 8 months (2-12 months). Aesthetic and functional result was excellent.

CONCLUSIONS

Single port surgery in the treatment of epigastric hernias has comparable results with traditional open technique, with the advantage of better cosmetic result without visible scars. It is a technically feasible procedure, even for surgeons currently in endosurgery training.

1.4 (V) Thoracoscopic Management of a Superior Vena Cava Injury. Nick Engall, Baqer Sharif, Indre Zaparackaite, Robert Peters, Nick Lansdale, David Wilkinson. Royal Manchester Children's Hospital, Manchester, UK

AIMS

Central venous catheter (CVC) insertion in children is a widely performed procedure and major complications are rarely encountered. However, when complications such as a major vascular injury do occur, they can be catastrophic. Maintaining an awareness of the potential pitfalls and developing different techniques to manage these when they occur is vital. We report the thoracoscopic management of a superior vena cava (SVC) injury in a two-year-old girl during CVC insertion.

METHODS

Single video case with review of the literature.

RESULTS

During routine CVC insertion, resistance was felt during insertion of the peelable sheath over the guidewire. Fluoroscopy identified extravasation of contrast and suspected exit of the guidewire into the right thorax. The child remained haemodynamically stable and assistance from two paediatric thoracic surgeons was sought. A 5mm thoracoscope was inserted allowing precise visualisation of a looped guidewire projecting out of the SVC, into the chest. Two working ports then allowed elimination of the loop within the thorax prior to removal. As soon as the guidewire was subsequently removed from the neck, Floseal® and direct pressure were applied to the puncture site and haemostasis was achieved. The child made an uneventful recovery.

CONCLUSION

Empirical thoracotomy has high morbidity and different injury sites mandate different approaches. In the stable patient, thoracoscopy allows injury characterisation, surgical planning (e.g. thoracotomy approach) and may avoid the need for thoracotomy all together.

10.50-11:05: BREAK (ONLINE POSTERS)

11.05-11:40: VIRTUAL FREE PAPER SESSION 2 (UROLOGY)

Chairs: Navroop Johal (London - GOSH) & Pankaj Mishra (London - Evelina)

2.1 Is Dextranomer-Hyaluronic Acid Copolymer (Deflux®) injection safe and effective as first-line treatment of symptomatic primary VUR in infants? Joshua Cave, Andrew Ross, Diane De Caluwe, Nisha Rahman, Marie-Klaire Farrugia. Chelsea and Westminster NHS Foundation Trust, London, UK

AIMS

Sub-ureteric injection of Dextranomer-Hyaluronic Acid Copolymer (Deflux®) is a recognised intervention for symptomatic primary VUR. Our aim was to elucidate whether Deflux® injection in infancy is as safe and effective as in patients >1 year.

PATIENTS AND METHODS

Retrospective review of all patients with symptomatic primary VUR who underwent Deflux® injection between 2011 and 2019. Patient demographics (Table 1) were obtained from a prospectively-maintained database, and those patients with VUR associated with bladder dysfunction or obstruction were excluded. Primary outcomes were collected as shown in Table 2. Students' T-Test and Chi squared statistical analysis was performed as appropriate.

RESULTS

44 patients underwent Deflux® injection following a febrile culture-positive UTI whilst on antibiotic prophylaxis and were followed up for a median of 43 (7-128) months. Twenty-one children were <1 year at intervention (Group 1) of which 13 had bilateral intervention (34 renal units (RU)) and first Deflux® injection was at a median 8 (1-12) months. Twenty-three patients (30 RU) in Group 2 had first intervention at median 38 (13-128) months. There was no difference in incidence of complications, post-intervention UTI, or further procedures in infants receiving Deflux® compared to older children (Table 2).

CONCLUSION

Within the limits of patient numbers, Deflux® injection in infancy is a safe procedure with outcomes comparable to that in older patients.

Table 1:

Demographics	Group 1 (%)	Group 2 (%)	p-value
Patients	21	23	-
RU	34	30	-
Male	15 (71)	9 (26)	<0.05
Circumcised	14 (93)	6 (75)	0.08
VUR Grade 4-5 (RU)	25 (74)	19 (63)	0.38
Duplex systems	5 (11)	4 (24)	0.6

Table 2:

Outcomes post-Deflux® injection	Group 1 (%)	Group 2 (%)	p-value
Febrile UTI	5 (24)	10 (43)	0.17
Repeat Deflux®	4 (19)	5 (22)	0.82
Reimplantation	0 (0)	1 (2)	0.33
Readmission <28 days	1 (4)	0	0.29
Obstruction	0	0	-
Further intervention in Duplex	3 (60)	1 (25)	0.2

2.2 Pyeloureteral Magnetic Anastomosis (PUMA) device to simplify Laparoscopic Pyeloplasty – proof of concept experimental study. Tamas Cserni, Daniel Urban, Daniel Hajnal, Daniel Erces, Gabriella Varga, Andras Nagy, Marton Cserni, Mahmoud Marei, Supul Hennayake, Rainer Kubiak. Royal Manchester Children's Hospital, Manchester, UK

BACKGROUND

Suturing of the ureteropelvic anastomosis is the most challenging part of laparoscopic pyeloplasty. Staplers are not available and robotics remains expensive. The use of magnets to create an anastomosis (magnamosis) has been proven in the gastrointestinal tract, however not studied in the urinary system.

AIMS

Our aim was to prove the concept of magnamosis within the urinary tract and to develop a pyeloureteral magnetic anastomosis (PUMA) device to simplify laparoscopic pyeloplasty.

METHODS

Pelviureteric magnamosis: Pelviureteric anastomosis was performed in 6 minipigs. JJ stents and/or pyeloureteral stents (Salle stents) were equipped with neodymium magnets and an integrated needle. The procedure was established open, then laparoscopically. X-rays and contrast studies were used to confirm positioning. The anastomoses were assessed macro- and microscopically. Simulation: 11 surgeons performed

laparoscopic pelviureteric anastomosis with standard suturing and with the PUMA device on a plastic model. Time (T) and Quality (Q) were recorded. A time-quality score (TQ) was calculated using the formula $TQ = \text{Time} \times 5 / \text{Quality}$.

RESULTS

Pelviureteric magnamosis: After initial failure in two, a widely patent anastomosis was achieved in four animals. In the end of the experimental series the procedure was carried out laparoscopically without conversion to open surgery. The need for laparoscopic suturing and knot tying was eliminated. Removal of the magnetic JJ stents was possible via cystoscopy. Simulation: The TQ with standard suturing (67.79 ± 34.42) decreased significantly with the PUMA (9.45 ± 5.14) ($p < 0.001$).

CONCLUSIONS

Magnamosis is feasible in the urinary tract. A PUMA device may simplify laparoscopic pyeloplasty in the future.

2.3 Testicular remnant “nubbin” and incidental ectopic adrenal cortical rests: A case series and systematic review. Manish Pathak, Biangchwadaka Suchiang, Poonam Elhence, Rahul Saxena, Avinash Jadhav, Kirtikumar Rathod, Arvind Sinha. All India Institute of Medical Sciences Jodhpur, India

AIM

To determine whether excising a testicular remnant or nubbin is necessary and perform a systematic review of the incidental ectopic adrenal cortical rest associated with undescended testis.

Material and methods: A retrospective analysis of impalpable undescended testis was carried out between May 2016 and June 2019. The demographic data, intra-operative findings and histopathological diagnosis were analyzed. In conjunction with this, systematic search of PUBMED and EMBASE database was performed by using the search terms “undescended testis” AND “ectopic adrenal tissue”. Data was collected for demographic characteristics, size and appearance of ectopic adrenal cortical rest and histopathology. Quantitative data has been presented as medians. Categorical variables have been presented as percentages.

RESULTS

We encountered 43 cases of impalpable undescended testis, out of which, nubbins were identified in 9 cases. Incidence of EACT in nubbin and impalpable UDT was 2/9 (22.22%) and 2/43 (4.7%) respectively. None of the excised nubbin had germ cells. On Systematic review, EACT associated with UDT was seen in 90/2501 (3.6%), while its association with testicular nubbin has been reported only once before in a case report.

CONCLUSION

A testicular nubbin is a condition wherein no viable testicular tissue can be grossly identified in a case of impalpable testis. Even when germ cells are not found in the excised nubbin, the presence of ectopic adrenal cortical rest make them prone to later malignant transformation. Association of EACT with UDT has been consistently reported but there is scarcity of such documentation in association with testicular nubbin.

2.4 (V) A Novel Technique of DJ Stent Insertion in Minimally Invasive Ureteropelvic Junction Obstruction Surgery in Pediatric Patients: Retrospective Analysis. Manish Pathak, Tanmay Motiwala, Rahul Saxena, Arvind Sinha. All India Institute of Medical Sciences Jodhpur, India

INTRODUCTION

Double J (DJ) stent insertion during laparoscopic pyeloplasty is a critical and time consuming. We developed a novel technique of insertion of DJ stent using a 14 gauge intravenous cannula that enables the completion of procedure in a single step. The purpose of this study was to retrospectively analyze the cases of laparoscopic pyeloplasty using this technique.

METHODS

Retrospective analysis of the data of the patients with congenital pelviureteric junction obstruction (PUJO) operated (June 2016–December 2019) was done. Medical records were reviewed for demographic data, site of surgery, size of DJ stent inserted, time taken and technique used for DJ stent insertion. Review of the operation videos was done and compared with outcome.

Technique: 14 gauge intravenous cannula is used to insert the DJ stent in a single step. The inner diameter of the sheath is 1.6mm and DJ stent up to outer diameter of 4.8 Fr (French) can be inserted through this.

RESULTS

Twenty-eight patients with median age- 5 years (2 months-16 years) (25 males ; 3 females), 17 left sided PUJO, 9 right sided and 2 bilateral PUJO. The median time to insert DJ stent using our technique was 6 (3-10) minutes. There was no failure in laparoscopic DJ stent insertion. In all the patients procedure could be completed successfully in a single step.

CONCLUSION

This is a novel, easy and quick method of insertion of DJ stent in laparoscopic pyeloplasty.

2.5 (V) Cystoscopy Assisted Laparoscopic Total Excision Of Giant Bladder Diverticulum. Shimaa Ibrahim, Hazem Mosa, Anu Paul, Pankaj Mishra, Massimo Garriboli, Arash Taghizadeh. Evelina Children's Hospital, London, UK

AIM

To present an innovative minimal invasive approach to giant bladder diverticulum (Video).

METHODS

A 10-year-old boy presented with recurrent abdominal pain, vomiting and hesitancy, primarily diagnosed as abdominal migraine. An ultrasound and MRI revealed an incidental finding of large capacity bladder with diverticulum of 55 X 51 X 14mm with capacity of 390ml.

Bladder functions assessment suggested bladder capacity to be 853 ml (expected capacity 300ml) with post-void-residuals ranging from 226ml to 391ml. Fluroscopy confirmed previous findings and demonstrated a giant diverticulum behind the bladder..

Interestingly, his father suffers from abdominal migraine, urinary bladder diverticulum caused acute urinary retention that needed emergency exploration. However, a genetic link yet to be proved

A diagnostic cystoscopy confirmed the presence of huge bladder diverticulum and a posterior urethral valve which was resected. He was commenced on CIC and 2hrly timed voiding.

RESULTS

Cystoscopy assisted laparoscopic excision of the diverticulum was accomplished. First, cystoscopic guided cannulation of left ureter with a JJ stent. Laparoscopic recognition of the diverticular neck achieved using cystoscopic trans-illumination as a guiding light, subsequent laparoscopic complete dissection and excision of the diverticulum closure of bladder defect. cystoscopic filling of the bladder demonstrated water tight bladder closure with no intraperitoneal leak.

CONCLUSIONS

Although laparoscopic excision of bladder diverticulum deemed to be difficult, the use of cystoscopic trans-illumination is of great help to ensure safe identification and excision.

11.45-12:25: MIS APPROACHES: PAEDIATRIC INTERVENTIONAL RADIOLOGY

Chairs: Simon Clarke (London – Chelsea) & Abraham Cherian (London - GOSH)

- Alex Barnacle (Great Ormond Street)
- Simon McGuirk (Birmingham)
- Tim Bradnock (Glasgow)

12.25-12:30: CLOSING REMARKS

Virtual Session 2.

FRIDAY NOVEMBER 6th 09:30-12:30 (LONDON, UK)

09:30-09:35: WELCOME

Simon Clarke (BAPES President)

09:35-10:05: VIRTUAL FREE PAPER SESSION 3 (GENERAL SURGERY)

Paul Charlesworth (London – Royal London) & Sean Marven (Sheffield)

3.1 Experience with minimally invasive surgery for the repair of congenital diaphragmatic hernia.

Camila Gonzalez Ruhrnschopf, Aixa Reusmann, Mariano Boglione, Soledad Arbio, Marcelo Barrenechea. Hospital de Pediatria Prof. Dr JP Garrahan, Buenos Aires, Argentina

AIMS

Minimally invasive surgery (MIS) for the repair of congenital diaphragmatic hernia (CDH) remains controversial. The aim of our study is to report the experience at our institution with this approach over the last 8 years.

METHODS

We performed a retrospective review of patients who underwent MIS repair for CDH at our hospital from January 2012 to May 2020. Data was collected regarding demographics, prenatal diagnosis (PN), age at operation, type and side of defect. Primary outcomes were survival, recurrence, small bowel obstruction (SBO) and length of stay (LOS).

RESULTS

From January 2012 to May 2020, 222 patients with CDH were admitted and 182 underwent surgical repair. MIS was used in 52 (28.6%). Nine patients (17%) were converted to open surgery and 43 (83%) completed through MIS. Median gestational age was 38 (range 30-42) and median weight 3030 (range 2400 - 4300). Twenty-five patients (58.1%) had PN. Median age at surgery was 5 days (range, 1 - 109). Thirty eight patients (88.4%) had a left defect. Regarding type of defect, 1 (2.3%) had type A, 32 (74.4%) type B and 10 (23.25%) type C. Median LOS was 24 days (range, 7 - 88) and median follow up was 522 days (range, 22 - 2236). Mortality rate was 2.3% (n=1) and recurrence rate 6.98% (n=3). One patient developed with an operative SBO in postoperative day 128, and one patient required an exploratory laparotomy due to abdominal bleeding.

CONCLUSION

MIS is a feasible approach for the repair of CDH with the implementation of strict selection criteria.

3.2 Literature review of techniques for Laparoscopic Primary Balloon Gastrostomy and report of our experience of consecutive 80 children using the Seldinger's technique. Satej Shankar Mhaskar, Clara Chong, Hasanthi Vithana, Thomas Tsang. Norfolk and Norwich University Hospital, Norwich, UK

AIM

Various laparoscopic techniques including use of stay stitches + purse string, transperitoneal sutures, Stamm sutures via abdominal gastrostomy site incision for gastric wall fixation have been reported. We would like to report our low cost, safe and very reliable technique and its comparison with other techniques.

METHOD

The medical records of 80 children who had Primary Laparoscopic Balloon gastrostomy (PLBG) performed between 2001 and 2018 were reviewed. The mean age was 30 months (1 month – 15 years 10 months). Gastrostomy site was planned and under laparoscopic visualization, 2 temporary U-stitches close to each other were placed across the anterior stomach wall at the planned gastrostomy site. Our assembled kit for the Seldinger technique included a 12G intravenous cannula, guide wire, X-ray dilator 12 / 14/ 16 Fr and a Tuohy needle. A 12 Fr/ 14 Fr Button with the length matching the thickness of the abdominal was used.

RESULTS

There was no perioperative mortality or major complications. Using the gastrostomy 3 hours postoperatively associated with no leaks. Late minor complications such infection or granulation of gastrostomy site were easily treated in the community. Regular change of Button gastrostomy was carried out by the Community Team. One patient developed gastrostomy site fistula (1.25%) which required closure. We have reviewed other different techniques for PLBG, complications reported were mainly minor and major ones ranged from 0 - 1%.

CONCLUSION

Primary laparoscopic button gastrostomy by Seldinger's technique is safe, feasible and reliable and choice of gastric fixation is more of an individual preference.

3.3 Paediatric Surgical Management of Primary Pigmented Nodular Adrenocortical Disease: A single tertiary centre experience and review of literature. Julie Carroll, Faisal S Ahmed; Dr Avril Mason; Mr Stuart O'Toole; Dr M Guftar Shaikh; Mr Atul Sabharwal. Royal Hospital for Children, Glasgow, UK

AIMS

Primary Pigmented Nodular Adrenocortical Disease (PPNAD), is a rare form of adrenocortical hyperplasia. Definitive management is bilateral adrenalectomy. There is no surgical consensus on the management of PPNAD. We reviewed the surgical approaches utilised in cases of PPNAD in our regional centre.

METHODS

Retrospective, single tertiary centre, case series reviewing all cases of PPNAD managed between 2004-2018.

RESULTS

Five adrenalectomies were performed in four PPNAD patients. Median age at surgery: 7.45 years (range 3.34-10.16). One patient underwent unilateral transperitoneal adrenalectomy (TPA) with subsequent contralateral TPA two years later due to disease recurrence. One patient underwent bilateral TPA. Two patients underwent bilateral retroperitoneoscopic adrenalectomy (RPA). Median operation length was 3 hours (range 2.5-5.4) for TPA and 6.4 hours (range 6.3-6.5) for RPA. Time to discharge post-operatively was median 7 days (range 6-9) for TPA and 9 days (range 2-16) for RPA. Patients were eating and drinking median 4 days (range 2-6) post-operatively in TPA and median 1.5 days (range 1-2) in RPA. All procedures were completed without conversion or intra/post-operative complications.

CONCLUSIONS

Our centre's experience demonstrates the variety of surgical approaches used successfully in management of PPNAD. Although there are only 4 patients in our series, there are no reports of paediatric experience of RPA in PPNAD. RPA seems to be the most favourable due to ease of access to the adrenal glands, a faster return to full enteral intake and normal activities. Local experience and expertise need to be considered when determining surgical approach.

3.4 (V) Laparoscopic splenectomy using a vascular stapler: A safe and efficient method for dissection of the splenic hilum. Raef Jackson, Prabhu Sekaran, Semiu Folaranmi. Children's Hospital for Wales, Cardiff, UK

AIMS

Paediatric laparoscopic splenectomies have traditionally been performed with lengthy dissection of the splenic hilum with a combination of clips and energy devices. We present an alternative technique, utilising laparoscopic vascular stapler devices to enable safe, efficient dissection of the splenic hilum.

METHODS

2 year retrospective cohort study of laparoscopic splenectomies and combined splenectomies/cholecystectomies performed using vascular stapler technique (VST) versus splenic hilar dissection technique (SHDT). Primary outcome measure was operative time, secondary outcomes included complications and long term follow up. We also present a video recording of our vascular stapler technique.

RESULTS

There were six laparoscopic splenectomies (5 VST vs 1 SHDT) and three combined procedures (1 VST vs 2 SHDT) over the study period. Average operative time was shorter for both laparoscopic splenectomy (182.4min vs 387min) and combined splenectomy and cholecystectomy (285min vs 416.5min) using the vascular stapler technique. There were no major complications or returns to theatre in our study, and no reported long term complications. The accompanying video demonstrates a safe and efficient technique.

CONCLUSIONS

The use of vascular stapler devices during the dissection of the splenic hilum is safe and efficient, with no major complications reported in our study, and represents a viable alternative technique to current practice.

10:10-10:40: 2020 KARL STORZ LECTURE



Prof Alaa El-Ghoneimi (Paris)

Introduced by Abraham Cherian (London – GOSH)

Prof. Alaa El-Ghoneimi, MD, PhD, FEBPS, FEAPU, is Pediatric Urologist, Professor of Pediatric Surgery at the University of Paris. He is Head of department of Pediatric Surgery and Urology at the University Children Hospital Robert Debré. He is the coordinator of the national reference center of rare malformations of urinary tract, MARVU. He accomplished training, fellowship, clinical and academic practice in different programs of pediatric surgery and urology: Cairo (Egypt), Toronto (Canada), Paris, Nice, Marseilles (France). His fields of expertise are minimal invasive surgery, DSD and hypospadias surgery, renal transplantation, and reconstructive surgery. He is a research director; on the main topic of obstructive uropathy. He is member of the French Academy of Surgery. He has published more than 120 international publications. He is the past-president of the French Society of Pediatric and Adolescent Urology (SFUPA), and the past scientific secretary of the European Society for Pediatric Urology (ESPU). He has been awarded in April 2013, the title of “Chevalier de l’ordre national de la legion d’honneur” by the President of the republic of France.

10:45-11:05: STATE OF THE ART 2020: INDUSTRY TALKS

Chairs: Helen Carter (Leeds) & Ed Hannon (Leeds)

- Karl Storz
- Applied Medical
- Healthcare 21
- Operating Room Systems

11:05-11:20: BREAK (ONLINE POSTERS)

11:20-12:20: VIRTUAL FREE PAPER SESSION 4 (GENERAL SURGERY & UROLOGY)

Chairs: Alex Macdonald (London – Chelsea) & Anju Gopal (Manchester)

4.1 *Articulating the initial experience of ArtiSential Articulated instruments.* Georgina Bough, Paul Charlesworth. The Royal London Hospital, London, UK

AIMS

To describe the initial experience of artisential articulating instruments in paediatric surgery.

Introduction: Recently articulated laparoscopic instruments have been developed offering the advantages of robotic manoeuvrability without the cost implications. To date, ArtiSential Articulated instruments have only been used in adult practice. We describe our initial experience in a paediatric setting.

METHODS

Following a simulated training programme the ArtiSential articulated instruments were employed using an iterative learning model.

RESULTS

Articulated instruments were deployed in a range of paediatric surgical procedures with good effect. 8mm ports were required to maintain intra-abdominal pressure. Instrument utility evolved over time with initial use of both laparoscopic and articulated equipment. The additional manoeuvrability was particularly effective in challenging areas such as hiatal dissection during fundoplication and laparoscopic suturing in a limited space.

CONCLUSIONS

Artisential articulating instruments can be safely used in a paediatric population with a limited learning curve. Articulating instruments offer a range of additional manoeuvres without the cost implications of a robotic approach.

4.2 *Hem-o-Lok polymer ligation clips for major vascular control in paediatric minimally invasive surgery.* Verity Haffenden, Robert Peters, David Wilkinson, Nick Lansdale. Royal Manchester Children's Hospital, Manchester, UK

AIMS

The challenge of ligating large vessels endoscopically has brought sweat to the brow of many a surgeon, yet the optimal method for use in a small working space remains unknown. Reports of delayed, major haemorrhage with exclusive energy device use have raised significant concerns. We therefore report outcomes of an alternative sealing device (Weck Hem-o-Lok polymer ligation clips) in laparoscopic and thoracoscopic surgery.

METHODS

A retrospective review of all patients (<18 years) who underwent laparoscopic splenectomy or thoracoscopic pulmonary resection between February 2018 and August 2020 (30 months) was undertaken. Data are presented as median (IQR).

RESULTS

Twenty-eight patients were identified (14 female); 15 underwent laparoscopic splenectomy and 13 thoracoscopic lobectomy/resection of pulmonary sequestration. Age at surgery was 7 years (6–10) and weight 22.7kg (19.6–39.1) in the splenectomy group: it was 18 months (14–20) and 12.4kg (10.8–13.3) in the thoracic group. Hem-o-Lok clips (medium-large) were used to individually ligate: (i) the main splenic artery and vein; or (ii) pulmonary arterial branches and vein; or (iii) systemic sequestration vessels, using a 5mm endoscopic

applicator. In most cases, two clips were placed proximally and one distally: the vessel then divided without energy.

There were no incidences of clip failure during application or migration. There was no significant intra-operative or post-operative bleeding. Length-of-stay was 2 (2-3.5) days for splenectomy and 3 (2-5) days for pulmonary resection.

CONCLUSION

Hem-o-Lok polymer ligation clips are a safe and reliable method for major vascular control during endoscopic surgery in small children.

4.3 A proposed descriptive classification for müllerian duct remnants to facilitate selection of the laparoscopic technique: excision versus division. Mahmoud M. Marei, Mohamed Sayed Abdelmonsif, Gamal Eltagy, Mohamed M Elbarbary, Noha Arafa, Ahmed Kadry Wishahy. Cairo University Faculty of Medicine (Kasr Alainy) Pediatric Surgery Unit/Section, Cairo University, Egypt

AIMS

Müllerian duct remnants (MDRs) in male DSD range from a small utricle to a complete female system and have variable relations with the male duct system. We analysed these variations to facilitate operative decision making.

METHODS

We prospectively reviewed a series of 18 patients with MDRs (raised as males), over 2 years, all managed laparoscopically, following one of two approaches, either longitudinal splitting/division or near-total excision. We generated a classification of MDRs based on their relation to the vas (V0: absent relation bilaterally; V1: unilateral relation; V2: bilateral relation) and gonadal status and histology (G0: absent; G1: unfavourable [ovary or dysgenetic]; G2: ovotestis; G3: normal testis – subdivided into right/left).

RESULTS

Bilateral complex connections between MDRs and vasa deferentia (V2) e.g. PMDS (with a uterus and bilateral fallopian tubes), rendered excision difficult, thus received a laparoscopic longitudinal division and debulking (6 cases), to permit orchidopexy (G3). Cases that allowed safe laparoscopic excision of the MDR without jeopardizing the male duct system, had either no relation with the Vas (V0); unilateral relation (V1) e.g. MGD; or bilateral relation (V2) with one side connected to an absent (G0) or undesired gonad (G1). The latter group (12 cases) were less virilized and the MDR-vas connection was distal and less extensive. The vasa deferentia were preserved in all cases, with no inadvertent visceral or ureteric injuries.

CONCLUSION

This novel classification addresses the feasibility of excision or division of MDRs. The MDR and vas deferens are more separable/dissectable in unilateral involvement with the male duct system.

4.4 The evolution of paediatric nephrectomy surgery: is single instrument single operator retroperinoscopic nephrectomy the MIS standard? Hazem Mosa, Adele Giannettoni, Anu Paul, Pankaj Mishra, Massimo Garriboli, Arash Taghizadeh. Evelina Children's Hospital, London, UK

AIM

Nephrectomy is one of the commonly performed procedures in paediatric Urology. Indications vary and may include recurrent UTIs in non functioning kidneys or end stage renal disease in preparation for a kidney transplant. The surgery can be performed using an open technique, transperitoneal laparoscopy or retroperinoscopic surgery. We reviewed our 10 year experience with nephrectomies to evaluate the difference in operative time, intraoperative complications and hospital stay using different techniques.

PATIENTS AND METHODS

Retrospective chart review of all patients who underwent nephrectomy surgery at a single institution. 105 patients were included. The technique used for nephrectomy was single instrument retroperinoscopic nephrectomy (SIRP) (n=11), Two instrument retroperinoscopic nephrectomy (TIRP) (n=15), Transperitoneal laparoscopic nephrectomy (TP) (n=43) and open retroperitoneal surgery (n=60). Patients who underwent bilateral nephrectomies were excluded. Operative time, intraoperative complications and hospital stay length were compared using a one way ANOVA test.

RESULTS

No statistically significant difference in operative time (P value 0.906), intraoperative complications (P value 0.6234) or hospital stay length (P value 0.391) was detected.

CONCLUSION

The single instrument retroperinoscopic nephrectomy (SIRP) outcomes are comparable to open surgery, transperitoneal laparoscopy and two instrument retroperinoscopic nephrectomy (TIRP). It offers independence as it requires a single operator and allows the surgeon to optimize the field of vision in a tight operative space which may be more difficult with an assistant holding the camera.

4.5 Retroperitoneoscopic lymph node sampling for staging of paratesticular Rhabdomyosarcoma in children. Sara Lobo, Naser Al-Soudan Al-Anazi, Alexander Cho, Naima Smeulders, Imran Mushtaq. Great Ormond Street Hospital for Children, London, UK

AIMS

Paratesticular Rhabdomyosarcoma (PT-RMS) is primarily treated with a trans-inguinal radical orchidectomy with high ligation of the spermatic cord. Microscopic metastatic disease in retroperitoneal lymph nodes (LN) has been observed in 30-40% of boys aged ≥ 10 years. Incorrect staging risks relapse which is difficult to cure. The new European protocols will advocate template-based ipsilateral retroperitoneal lymph node sampling (RPLNS) for all boys aged ≥ 10 years. We describe a retroperitoneoscopic technique.

METHODS

A 15 years old boy presented with a 1 month history of rapidly enlarging right scrotal mass, measuring 9.6 x 6.8 x 11 cm in MRI with no enlargement of inguinal or abdominal lymph nodes.

RESULTS

At right radical orchidectomy, dissection through the deep ring afforded access to the iliac vessels with collection of regional lymph nodes. Thoracoscopic excision biopsy of an equivocal lung lesion, was combined with RPLNS through a posterior prone approach. Intraoperatively, the IVC, testicular vein and artery, right ureter and right renal hilum were all clearly displayed permitting template sampling of the draining lymph nodes along the right renal artery, aorto-caval and para-caval areas. Prompt recovery permitted discharge on day 3 post-operatively. Chemotherapy per EpSSg RMS protocol was commenced. Nodes and the lung biopsy were negative for malignancy.

CONCLUSIONS: Surgical nodal sampling provides the most accurate staging. A retroperitoneoscopic approach is safe and affords easy access to para-aortic, inter-aorto-caval and para-caval areas with minimal dissection, allowing a rapid recovery and early commencement of chemotherapy.

4.6 PUJO in malrotated kidneys: is transperitoneal uretero-calycostomy the procedure of choice? Hazem Mosa, Anu Paul, Pankaj Mishra, Massimo Garriboli, Arash Taghizadeh. Evelina Children's Hospital, London, UK

AIM

Laparoscopic dismembered Anderson-Hynes pyeloplasty is the gold standard of management of pelvi-ureteric junction obstruction (PUJO). A malrotated kidney poses an anatomical challenge to the performance of a

standard dismembered pyeloplasty. We present the technique of transperitoneal laparoscopic uretro-calycostomy used for the management of two patients.

METHODS

We present two patients a 9 year old female and a 10 year old female who presented with acute abdominal pain . Ultrasound revealed bilateral severe hydronephrosis in the first patient. The second patient underwent a CT scan that diagnosed pelvic appendicitis and incidentally picked up a left dilated pelvicalyceal system. Subsequent functional imaging revealed bilateral PUJO in the first patient and left PUJO in the second patient. Both patients were admitted for a planned transperitoneal laparoscopic pyeloplasty. Intraoperatively, Trans-Mesenteric access was gained to the kidney .It was noted to be malrotated with the PUJ displaced posteriorly. A standard dismembered pyeloplasty was not technically feasible. The ureter was Ligated proximally and distal end was spatulated and anastomosed anteriorly to a lower pole calyx. A JJ stent is passed across the anastomosis.

RESULTS

Both patients had an uneventful post operative recovery. Ultrasound follow up at 6 month showed significant reduction in hydronephrosis.

CONCLUSIONS

Malrotation of the kidney can be an incidental intraoperative finding that challenges the performance of a standard dismembered pyeloplasty. Trans-peritoneal uretro-calycostomy can be a part of a paediatric urologist's armamentarium to manage such challenging anatomy and is feasible to perform laparoscopically.

4.7 Pediatric Urology in the Era of COVID-19: A Systematic Review. Arvind Sinha All India Institute of Medical Sciences Jodhpur, India

INTRODUCTION

The corona pandemic has mandated the pediatric urologists to adapt to the changing dynamics and adopt the strategy to minimize the collateral damage. The purpose of this study is to compile all the available literature and published guideline to facilitate the patient management.

MATERIAL AND METHODS

Pubmed, Scopus and Google scholar database were systematically searched using the search terms "COVID-19" AND "pediatric" AND "urology". All published papers retrieved from this search were considered for this review based on PRISMA guidelines. In addition to this World Wide Web search was conducted for guidelines, recommendations published by scientific societies and their websites were searched for the desired information.

RESULTS

Total eight articles and society recommendations met the inclusion criteria and included in the study. The general level of agreement was found on need to postpone the elective cases and ensuring the safety of hospital staff. The organ and life threatening conditions like acute and symptomatic obstructive uropathy and testicular torsion should be treated on an emergent basis irrespective of COVID status. There is no evidence that any modality either open or laparoscopic has any advantage over the other. The protocols need to be modified based on stage of pandemic, availability of resources and local guidelines. The restart of work once the pandemic is over should also be prioritised.

CONCLUSION

There are very few articles and society guidelines on pediatric urology care in the COVID era, but all the available guidelines stress on prioritisation, protocol based management and improvisation as per the circumstances.

4.8 (V) *Combined transvesical plus transurethral approach to large posterior urethral polyp.* Arjun Visa, Anu Paul, Pankaj Mishra, Massimo Garriboli, Arash Taghizadeh. Evelina Children's Hospital, London, UK

AIM: Describe a combined transurethral and transvesical approach to the excision of a large urethral polyp protruding into the bladder. (Operative Video)

METHODS: 6 year old male, with symptoms of haematuria and intermittent symptoms of bladder outlet obstruction, presented with urinary retention. Ultrasound raised a suspicion of vesical mass with vascularity. Emergency cystoscopy confirmed a large smooth walled polyp arising from the upper end of the verumontanum with a narrow stalk prolapsing into the bladder and ending into a large globular mass like a mushroom. The mucosa over the polyp was smooth with no inflammatory changes. A supra-pubic catheter was put in and MRI was done which showed similar findings and there was no invasion into the surrounding tissue. Tumour markers were normal. The bulbous end of the polyp was 14mm in diameter and could not be retrieved trans-urethrally. With the aim to keep the polyp intact, the stalk was hot snared using a cystoscope. This released the polyp into the bladder. The SPC tract was dilated using the Percutaneous Lithotomy (PCNL) dilator and the bladder was accessed under cystoscopic guidance. A basket was passed through the supra-pubic access, polyp was manoeuvred into the basket using the cystoscope and retrieved intact through the suprapubic site.

RESULTS: The histology of the polyp confirmed to be fibroepithelial polyp.

CONCLUSION: The utilisation of an endoscopic, trans-vesicle approach in conjunction with a transurethral approach for the removal of a large posterior urethral polyp allowed for a safe and complete excision of the polyp.

4.9 (V) *Cold knife incision of iatrogenic vesico-ureteric junction stricture post extravesicle reimplantation.* Clara Chong, Anu Paul, Pankaj Mishra, Massimo Garriboli, Arash Taghizadeh. Evelina Children's Hospital, London, UK

AIMS: We present a video of incision of vesicoureteral junction obstruction (VUJO) post ureteric reimplantation.

METHODS: 2 year old boy with gross left hydro-nephro-ureter with kidney function of 42% due to a congenital stricture of the distal ureter 8cm from ureteric orifice (UO) went for an extravesicle reimplantation with resection of the stenotic segment. Planned ultrasound 3 months post procedure demonstrated gross enlargement of left kidney with increased pelvicalyceal dilatation. Cystoscopy identified ischaemia and stenosis of the distal most part of the ureter at the neo-UO and gross ureteric dilatation in the submucosal tunnel. 0.36 Sensor guidewire passed across the narrow segment and subsequently stretched with cystoscope over the guidewire. The distal most end of the submucosal tunnel was incised with the resectoscope hook blade to relieve the obstruction. 11Fr resectoscopy was able to enter the UO freely at the end of the procedure. Check cystoscopy in 2 months showed good size neo-UO but there was an area of ledge still persistent and was incised again.

RESULTS: Post procedure ultrasound demonstrated improved dilatation. Child remained well after JJ stent removal.

CONCLUSIONS: Ischaemic stenosis at the anastomotic site is a rare complication of reimplantation. Cystoscopic cold knife incision can be considered as a management strategy if the stenosis is at the distal most part of the submucosal tunnel. The procedure can be repeated before considering significant undertaking of a redo reimplantation.

12:20-12:30: CLOSING REMARKS

Online Posters.

DURING SESSION BREAKS AND ONLINE AT WWW.BAPES.ORG.UK

P1 *Single port treatment of epigastric hernias with the use of a pleuroscope.* **María José Rosell Echevarría**, Raquel Angélica Hernández Rodríguez; Eduardo Luis Pérez-Etchepare Figueroa; Mario Alberto Gómez Culebras. Hospital Universitario Nuestra Señora de Candelaria, Santa Cruz de Tenerife, Spain

P2 *More than 500 procedures performed with a 5mm, 3.5mm work channel pleuroscope that allowed even less invasive surgery.* **Raquel Angélica Hernández Rodríguez**, María José Rosell Echevarría, Eduardo Luis Pérez-Etchepare Figueroa, Mario Alberto Gómez Culebras. Hospital Universitario Nuestra Señora de Candelaria, Santa Cruz de Tenerife, Spain

P3 *Laryngotracheo-oesophageal cleft masquerading as a secondary megaesophagus with concurrent foregut duplication: Discussion and demonstration of interesting endoscopic findings.* **Bhushanrao Jadhav**, Aruna Abhyankar, Jim Stewart, Semiu Eniola Folaranmi. Noah's Ark Children's Hospital, University Hospital of Wales, Cardiff, Wales

P4 *Retained rectal Pouch: Diagnosis and Management.* **Aruna Abhyankar**, Anthony Lander, Indre Zapparackaite. Noah's Ark Children's Hospital, University Hospital of Wales, Cardiff, Wales

P5 *Laparoscopic splenectomy without mesh: an alternative management for wandering spleen.* **Jonathan Ducey**, David J Wilkinson, Robert T Peters, Nick Lansdale. Royal Manchester Children's Hospital, Manchester, UK

P6 *Minimally Invasive Primary Percutaneous Endoscopic Jejunostomy using T-Fastner technique in small children: a single center experience.* **Sofia Chacon**, Joshua Cave, Amulya Saxena, Muhammad Choudhry, Simon Clarke. Chelsea and Westminster Hospital, London, UK

P7 *Case Report; Double Ureteric Obstruction Mimicking Bowel Obstruction* **Shimaa Ibrahim**, Anu Paul, Pankaj Mishra, Massimo Garriboli, Arash Taghizadeh. Evelina Children's Hospital, London, UK

P8 *Scopes for small babies. A reversible, single stage, minimally invasive, instant solution; the primary laparo-endoscopic gastro-jejunal tube with gastropexy.* **Harmit Ghattaura**, Alex Lee. Oxford University Hospitals, Oxford, UK

P9 *Use of Lymphangiography in Neonates Prior to Thoracic Duct Ligation: a report of two cases and review of the literature.* **Jonathan J Neville**, Carmen S Chacon, Simon Jordan, Ben Robertson, Simon Padley, Simon A Clarke. Chelsea and Westminster Hospital, London, UK

P10 *Replacing the robot: are articulating laparoscopic instruments the future of minimally-invasive surgery?* **Arun Kelay**, Paul Charlesworth. Royal London Hospital, London, UK

P11 *Vas deferens sparing laparoscopic removal of a large prostatic utricle.* **Mahmoud M. Marei**, Tamás Cserni. Royal Manchester Children's Hospital, Manchester, UK

P12 *K-WIRE technique for Lap Pyeloplasty nephro-stenting - safety and efficacy.* **Sherif Almaksoud**, Abraham Cherian. Great Ormond Street Hospital, London, UK

P13 *Minimally Invasive Management of Polytrauma.* **David Thompson**, Erica Makin, Shailesh Patel. King's College Hospital, London, UK