

diameter from 15 to 90 mm. 17 cases showed spontaneous regression up to a complete remission, 13 of them measuring < 50 mm, while all other cases were managed surgically with a laparoscopic approach. When ovarian parenchyma was macroscopically evident it has been preserved. In 4 cases pathologic examination showed absence of any trace of ovarian parenchyma.

**Results** 11 cysts, all showing associated fluid corpuscular content were treated surgically, 8 of them larger than 50mm and. Among these, 5 presented torsion and one auto-amputation. In one case anaphylactic shock occurred during surgery. In all cases in which ovarian parenchyma was preserved, US follow-up at three months after surgery showed vital ovarian tissue.

**Conclusions** Ovarian cysts with size exceeding 50 mm are related to high risk of torsion. Cysts with corpuscular content show almost no tendency to regression after depletion of maternal hormones stimulation: surgery appears to be indicated after proper clinical observation.

#### 1594 LAPROSCOPIC CHOLECYSTECTOMY IN THE PEDIATRIC POPULATION: A SINGLE CENTER EXPERIENCE

doi:10.1136/archdischild-2012-302724.1594

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**Background and Aims** As the preferred technique for cholecystectomy in children, we aim to review our experience with laparoscopic cholecystectomy in the pediatric population to better understand the associated complications and outcomes.

**Methods** We performed an IRB approved, retrospective chart review of children ≤ 18 years who underwent cholecystectomy at a single academic institution between the years 1990 and 2010.

**Results** Of the 325 cases of cholecystectomy, 202 (62.2%) were performed laparoscopically. The primary indication for surgery was symptomatic cholelithiasis (45.5%, n=92). Preoperative endoscopic retrograde cholangiopancreatography (ERCP) was performed in 25 (12.4%) of cases. Variations in anatomy and technical difficulties (e.g. presence of adhesions) were found in 45 (22.3%) of patients. Intraoperative cholangiogram was performed in 20 (9.9%) and concomitant splenectomy was undertaken in 16 (7.9%) cases. Only 8 (4%) of cases were converted to an open fashion, all due to a lack of anatomical clarity. There were zero common bile duct injuries; however spillage of bile was present in 12 (5.9%) patients. Postoperative complications including wound infection 4, retained stones 4, abdominal abscess 1, and biloma 0, totalled 9 patients (4.5%). Median operative time was 117.5 minutes. Median postoperative hospital stay was 1 day and 19 (9.4%) patients had recurrence of abdominal pain without associated pathology. Three patients (1.5%) required postoperative ERCP. In this cohort, average follow-up was 54 months.

Abstract 1594 Table 1 Patient Characteristics

	n	%	Mean	Range
Age (months)			163.2	6–216
BMI (kg/m <sup>2</sup> )			23.4	12.9–47.6
Gender (Male)	56	27.7		
Gender (Female)	146	72.3		
Presence of Comorbidities	52	25.7		
Previous Surgical History (Abdominal)	25	12.4		
Previous Surgical History (Other)	32	15.8		
Admission Total Bilirubin (mg/dL)			1.5	0.2–22.8
Admission Amylase (U/L)			94.4	18–1184

**Conclusion** Laparoscopic cholecystectomy in pediatric population results in short postoperative hospital stays and has low complication rates. In our experience, it also leads to relatively high symptom relief.

#### 1595 POSTNATAL MANAGEMENT FOR PRENATALLY DIAGNOSED BILIARY CYSTIC MALFORMATIONS (BCM)

doi:10.1136/archdischild-2012-302724.1595

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**Background and Aims** The aim of this study was to determine an appropriate postnatal management plan for prenatally diagnosed BCM including cystic biliary atresia (BA) and choledochal cyst (CC).

**Methods** From 2002 to 2011, a total of 27 consecutive children with CC were treated at our institute. Eight of our 27 patients with CC were diagnosed prenatally and examined clinically. Of these 8 patients, 2 (Group A) underwent delayed primary definitive surgery after percutaneous transhepatic cholangiodrainage (PTCD), 2 (Group B) underwent early definitive surgery in the neonatal period, and 4 (Group C) underwent delayed primary definitive surgery without PTCD in early infancy. Prenatally diagnosed cystic BA was consisted with 2 of patients with type 1 cystic BA (Group D).

**Results** The operation was difficult for adhesion in Group A. The diameter of the anastomosis in the hepaticojejunostomy was small and anastomotic leakage occurred in one of Group B. In all 2 patients, BA was recognized as final diagnosis at laparotomy and a hepaticojejunostomy was carried out because of correctable type. The pathological findings of liver biopsy revealed slight fibrosis of Glisson's sheath in 6 of 8 CC patients. Severe liver fibrosis presented in one of two in cystic BA patients.

**Conclusion** In symptomatic CC patients, PTCD appears to be indicated only under certain circumstances, and delayed primary definitive surgery should be performed as early as possible thereafter. Clinicians need to be aware of cystic BA and how to distinguish it from CC to avoid inadequate primary surgical intervention.

#### 1596 OUTCOME OF COCHLEAR IMPLANTATION IN POST-MENINGITIS DEAF CHILDREN

doi:10.1136/archdischild-2012-302724.1596

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**Background** Bacterial meningitis is the most common cause of secondary sensori-neural hearing loss in pediatrics. Due to concomitant neurological sequel such as seizure, visual impairment and hydrocephalus the successful outcome of cochlear implantation is doubtful. The aim of this survey is assessment of cochlear implantation outcomes in post meningitis deaf children.

**Methods** Patients who were implanted at Baqiyatallah Cochlear Implant Center, during the years 2008–2010 due to post meningitis deaf children were enrolled. The intraoperatively and Postoperative auditory and speech abilities were explored and compared.

**Results** Two hundred eighty-four children with hearing loss were evaluated and eight children who were diagnosed as Post Meningitis Deafness were enrolled. The mean age of children at the meningitis diagnosis was 15.75±6.77 months and the mean age at cochlear implantation was 31.12±1.27 months. Electrode insertion in 6 out of eight patients was complete but 2 children required cochlear drill-out and in one child short electrode was used. The survey shows that auditory and language skills improved as well as expected. Improvement of auditory and speech abilities after 6 months was statistically significant (P-value< 0.05).

**Conclusions** It seems that cochlear implantation outcome in post meningitis deaf children is not the same as non meningitis deaf children but the cochlear implantation is the only and in most cases the best way of helping these children, particularly if the gap time between deafness and surgery is minimized and the ossification is

limited. Variation in outcome is not constant reason to restrict cochlear implantation in children with post meningitis deafness.

### 1597 THE SPECTRUM OF GENITAL MEDIAN RAPHE ANOMALIES AMONG INFANTS UNDERGOING RITUAL CIRCUMCISION

doi:10.1136/archdischild-2012-302724.1597

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**Background** This prospective study designed to collect data from all babies coming to do ritual circumcision in our center for any associated congenital anomalies in their genitalia.

**Objective** To evaluate the extent, spectrum of genital median raphe GMR anomalies and its impact on the normal baby life and also its effect on the circumcision outcome.

**Materials and Methods** 2880 babies aged from one day to 7 weeks were examined in a period of 6 years, from 2006 to 2011, all doubtful cases were reevaluated and cases with GMR anomalies were investigated for detection of other congenital anomalies and enrolled in the study.

**Results** 57 cases of GMR anomalies among 2880 examined babies with overall incidence of 2%, 18 of them had hypospadias, 5 had renal anomalies and 3 had limb anomalies. Circumcision postponed in 37 cases, where further investigations done, but routine circumcision carried on in 20 in spite of the presence of GMR anomalies.

**Conclusion** It is crucial to examine every baby coming for circumcision to detect any obvious or hidden congenital genital anomalies, congenital anomalies of median genital raphe are not so rare and some of these anomalies may necessitates surgical correction, and commonly accompanied with urinary tract anomalies.

### 1598 TRANS-UMBILICAL LAPAROSCOPIC-ASSISTED APPENDECTOMY: A RETROSPECTIVE STUDY

doi:10.1136/archdischild-2012-302724.1598

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**Introduction** Laparoscopic appendectomy (LA) in children is considered a safe and useful procedure compared with the open (O) appendectomy. Several variations of the LA have been described. The trans-umbilical laparoscopic-assisted appendectomy (TULAA) has been considered as a reliable and effective technique. We report our experience in the treatment of the acute appendicitis with TULAA approach.

**Materials and Methods** We analyzed records of patients underwent appendectomy in our Department from November 2009 to February 2012. Every procedures have been completed using all techniques, according to consultant's choice. Outcomes analysis

included: sex, age, weight, operator (consultant or trainer), conversion to O or LA technique, surgical time, length-of-stay, antibiotic and analgesic post-operative therapy, short and long-term complications, histological finding. Results are presented as values range and their averages.

#### Results

**Conclusions** In our study there is a clear evidence that TULAA is an effective and safe procedure.

It can be used for all kind of appendicitis, with a low-rate of conversion. Additionally, thanks to a rapid learning-curve, it can be performed by a trainer, even if not completely skilled in the LA.

### 1599 PERI- AND POSTOPERATIVE COMPLICATIONS OF 215 CASES OF INGUINAL HERNIA IN CHILDREN

doi:10.1136/archdischild-2012-302724.1599

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**Background** The cure of inguinal hernia in children consists of high ligation of hernial sac, generally evolving with few complications.

**Aim** The evaluation of casuistry structure and evaluation of peri- and postoperative complications in children.

**Method** Retrospective analytical study for a period of three years includes case studies which required high ligation of the hernia sac (procesus vaginalis).

**Results** The 214 cases were stratified according to:

1. Location: left side 29 hernias (13.5%); bilateral 4 (1.8%); right side 181 (84.5%) cases;
2. Age: 1–3 years, 70 (32.7%); 4–6 years, 71 (33.1%); 7–12 years, 62 (28.9%); 13–18 years, 11 cases (5.1%);
3. During hospitalization: ≤ 3 days, 65 (30.3%); 4–5 days, 103 (48.1%); ≥ 6 days, 46 cases (21.4%);
4. Gender: Male 176 (82.2%), Female 38 cases (17.7%).

**Diagnosis at Discharge** No occlusion and gangrene 196 (91.6%); with occlusion and gangrene 9 (4.2%), without occlusion with gangrene 5 (2.3%), bilateral hernias without occlusion and gangrene 4 cases (1.8%).

**Perioperative and Postoperative Complications** Strangulated 8 (3.7%) - nonreducible 2, edema 3(1.4%), spermatic cord hematoma 2(0.9%), paralytic ileus 2(0.9%), erythema 21(9.8%).

**Conclusions** Inguinal hernias are found more common in boys, on the right side, in preschool (1–6 years) and school children (7–12 years).

Most cases were within the duration of hospitalization between 2–5 days.

Most hernias were without occlusion and gangrene.

Complications, fewer in number and diversity as in adult patients, are in order of frequency: erythema, strangulation/

Abstract 1598 Table 1 Results 1

	AGE	SEX (F/M)	WEIGHT (KG)	TIMING (MIN)	CONVERSION	ANTIBIOTIC	ORAL ANALGESIA	IV ANALGESIA	LENGHT-OF-STAY
TULAA (55)	9.8 (4–14)	34/21	36.9 (14.5–70.0)	61.0 (25–135)	6 (1 LA- 5 O)	54	26	36	3.7 (2–14)
LA (42)	10.5 (3.5–15)	19/23	41.3 (15.0–72.5)	72.1 (20–275)	1 (O)	39	24	28	4.8 (2–13)

Abstract 1598 Table 2 Results 2

	INTRA-OP COMPLICATIONS	POST-OP COMPLICATIONS	OPERATOR (C/T)	IPEREMIC	PHLEGMONOSUS	GANGRENOSUS	PERFORATED
TULAA (55)	2	4	37/18	32	17	3	3
LA (42)	0	2	39/3	22	9	5	6