**Methods:** A retrospective review was performed through our electronic database of children who underwent ileal-based urinary reservoirs between 2000 and 2009. Patients who were diagnosed with reservoir calculi were identified. Perioperative medical records were reviewed for patients’ demographics, diversion details, stone criteria, mode of treatment, complications, and recurrence rate.

**Results:** In all, there were 26 patients with pouch stones [11 boys (42%) and 15 girls (58%)], with a mean (range) age of 11 (4–16) years. The main presentation was incidentally discovered in 10 patients (39%), haematuria in nine (34%), pain in six (23%), and urinary retention in one (4%). In all, 15 cases were post bladder augmentation and 11 post bladder neck closure augmentation ileocystoplasty and continent cutaneous outlet. All cases underwent urinary diversion for nonmalignant causes. The mean (range) stone size was 4 (1–10) cm and mean (range) HU was 672 (205–1091). In all, 22 children had positive urine cultures, whilst four were sterile. Nine (35%) children required open pucholithotomy, whilst 17 (65%) were managed endoscopically. A percutaneous approach was used in eight children and urethral access was used in nine. Mechanical extraction was performed in seven children and stone disintegration was required in 10. Pouch injury occurred in two children, which required prolonged catheterisation. Six children developed stone recurrence after 3–12 months, all were after endoscopic disintegration and all required redo endoscopic extraction.

**Conclusion:** Pouch stone is an established long-term complication of urinary diversion. Open and endoscopic approaches are feasible in this cohort, but the recurrence rate is high with the endoscopic approach.

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**[39] Management of pouch stones in a paediatric cohort: Single-centre experience**

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**Objective:** To report our experience with different approaches for management of pouch stones in children with an ileal-based urinary reservoir.

**Methods:**

**Inclusion criteria:**
- Patients with pouch stones
- Age > 6 months
- Reservoir calculi identified before discharge
- Performed endoscopic or open procedures

**Exclusion criteria:**
- Retained calculi
- Patients with concomitant medical conditions

**Results:**
- 520 patients were recruited
- 28 patients with pouch stones were identified
- 26 patients were included in the study
- 17 (65%) patients underwent endoscopic procedures
- 9 (35%) patients underwent open procedures
- 10 (35%) patients required stone extraction
- 5 (19%) patients required mechanical extraction
- 4 (15%) patients required stone disintegration
- 1 (4%) patient required open pucholithotomy

**Conclusion:** Endoscopic procedures are the preferred approach for the management of pouch stones in children. Open procedures are reserved for cases where endoscopic interventions are unsuccessful.

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**[40] Day surgery prostate resection by bipolar photovaporporisation using the transurethral resection in saline (TURis) system: First experience in Africa**

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**Objective:** To prospectively evaluate the efficacy, safety and postoperative complications of prostate resection for benign prostate hypertrophy (BPH) by bipolar photovaporporisation using the transurethral resection in saline (TURis) system (BPV) in a day surgery setting.

**Methods:**

- Over a 21-month period, 520 patients who fulfilled the selection criteria were recruited
- Day surgery prostate resection using BPV
- Preoperative
International Prostate Symptoms Score (IPSS) and urine flow data were obtained in every patient. Perioperatively, we measured prostate resection time, weight of resected tissue and occurrence of any complications. Bladder residual content and duration of transurethral drainage were measured postoperatively.

**Results:** The mean (range) prostate tissue weight was 51 (45–80) g. The mean (range) operative duration was 45 (35–70) min. No conversions and no major complications occurred in any cases. The transurethral catheter was removed in 110 cases before discharge and in 410 cases the following day. All cases left hospital the same day. All patients had noticeable improvement in IPSS and maximum urinary flow rate.

**Conclusion:** BPV of BPH in selected patients can be carried out safely as a day care procedure and has beneficial outcomes for patients and services.

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[41] Complications of temporary urinary diversion using nephrostomy tube or JJ ureteric stent in pregnant women with symptomatic urolithiasis

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**Objective:** To report the complications of JJ stent and percutaneous nephrostomy (PCN) tube causing hospitalisation of pregnant women, as symptomatic urolithiasis is one of the most important causes of abdominal pain during pregnancy and in some situations it is better to implement temporary treatment and postpone any surgical procedures.

**Methods:** In this cohort study, from August 2013 to September 2016, 23 pregnant women with urolithiasis were referred to our centre in whom temporary urinary diversion was performed. The mean (SD; range) patient age was 27.1 (4.8; 20–37) years and most of them (69.5%) presented in the first trimester. All the procedures were done under ultrasonographic guidance with local anaesthesia. All the patients were followed routinely in the Urology and Gynaecology and Obstetrics clinics.

**Results:** We inserted a PCN tube in 12 patients (52.1%) and a JJ stent in 11 (47.8%). The mean (SD) age of the patients was 27.5 (5.4) years in the PCN Group and 26.7 (4.3) years in the JJ-stent Group (P = 0.710). Of these, seven patients (30.4%) developed complications including febrile UTI (two of 12 in the PCN Group and one of 11 in the JJ-stent Group) and bothersome stent-related symptoms (four of 11 in the JJ-stent Group). The occurrence of complications was not significantly different between the groups (two of 12 in the PCN Group vs five of 11 in the JJ-stent Group, P = 0.193); these patients were admitted and after stabilisation surgical treatment using ureteroscopy was performed. Surgical treatments were done in the second trimester. All the patients completed their pregnancies to full-term without any serious obstetric complications.

**Conclusion:** Temporary urinary diversion using a JJ stent or PCN tube can be associated with some potential complications that can threaten the mother and her foetus. In these situations, we advise temporary management until the second trimester when the surgical procedure is safer.

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[42] Critical analysis of the outcome of primary unilateral vesico-ureteric reflux in a contemporary series

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**Objective:** To explore the possible risk factors that affect the resolution rate in patients with primary unilateral vesico-ureteric reflux (VUR) under conservative treatment, as VUR is a common finding in the paediatric age group with the risk of repeated urinary tract infections and renal damage.

**Methods:** We retrospectively evaluated all patients with VUR between 2006 and 2014, and only patients with primary unilateral VUR were included. Records were reviewed for: age at diagnosis, antenatal history, gender, mode of presentation, side and grade of VUR, associated hydronephrosis (HN), presence of scarring, and split function on dimercaptosuccinic acid (DMSA) scan. Clinical and radiological outcomes were assessed. Both univariate and multivariate analyses were conducted.

**Results:** A total of 68 patients (32 boys and 36 girls) with primary unilateral VUR were included, with a mean age at diagnosis of 10 months. Antenatal HN was detected in 50% of the patients. VUR was high grade (IV–V) in 22 patients (32%). Associated HN was evident in 39 patients (57%). DMSA scans showed renal scarring in 16 patients (23%) and a mean split function of 47%. After a mean follow-up of 7 years, VUR resolved in 49 patients (72%). VUR grade, DMSA split function, and associated high-grade HN were significant predictors of VUR resolution. On multivariate analysis, the presence of high-grade HN with VUR was the only significant independent risk factor.