Conclusion: The resolution rate in primary unilateral VUR under conservative treatment is significantly affected by the grade of VUR, split renal function on DMSA, and presence of high-grade HN. Association of high-grade HN with VUR carries a low chance for spontaneous resolution.

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[43] Post-pyeloplasty follow-up plan, less invasive plan

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Objective: To describe a well-structured postoperative pyeloplasty protocol for follow-up, with less cost and minimal possibility of nephron function loss, as pelvi-ureteric junction obstruction (PUJO) is the most common uropathology found in of patients with antenatal hydronephrosis (HN; 30%), with no agreement regarding the ‘gold standard’ investigation to use after pyeloplasty for PUJO.

Methods: We retrospectively evaluated 130 paediatric patients with congenital PUJO in the period 2009–2013. Patients with bilateral PUJO or unilateral PUJO in a solitary kidney, associated with a diluted ureter or reflux, and patients with missed follow-up were excluded. We included only those with unilateral PUJO. Open dismembered pyeloplasty with stenting was the technique used in all cases. All patients were investigated postoperatively by multiple ultrasonographies and at least one diuretic renography.

Results: In all, 95 patients with a mean (range) age of 48 (3–180) months were included. After a mean (range) follow-up period of 4 (2–6) years, we assessed outcomes. Overall, 70 patients (73.7%) showed improved HN, 20 (21%) had stable HN, and five (5.3%) had deteriorated and needed re-intervention. Of the improved group, 39 patients (55.7%) improved within the first 6 months and 59 (84.3%) by the end of the first postoperative year, whilst the remaining patients improved in a time range of 2–6 years. None of the improved or stable group had an obstructive washout curve.

Conclusions: As most of the improvement occurs within the first 12 months after pyeloplasty, ultrasonography can be the single modality used for follow-up for the first year post-pyeloplasty for patients with improved HN and those with non-obstructive curves. Only for patients with unimproved HN by the end of the first year post-pyeloplasty, should further investigations be implemented to exclude obstruction.

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[44] Long-term outcome of shockwave lithotripsy in the management of patients presenting with calculic acute urinary retention

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Objective: To evaluate the efficacy of shockwave lithotripsy in the long-term in the treatment of calculic acute urinary retention (AUR).

Methods: From March 2015 to February 2017, a prospective study was conducted, and included a total of 50 male patients who were diagnosed with AUR as a result of urethral or vesical radio-opaque stone(s) at the Mansoura Urology and Nephrology Center. All patients underwent extracorporeal shockwave therapy.

Results: A total of 47 of 50 patients (94%) were included, as only they underwent an initial successful treatment by shockwave lithotripsy. The mean (SD) age was 44.5 (11.8) years, the mean (SD) stone greatest dimension was 12.2 (3) mm, 33 stones (70.2%) were migratory and 14 stones (27.6%) were secondary in nature. At long-term follow-up of this patient cohort, there was recurrence of vesical stones in none, two (4%), and seven (15%) at 6-, 12- and 18-month intervals, respectively. The mean (SD) age of the nine recurrent cases (19%) was 52.3 (5.7) years and eight were secondary with one migratory in nature.

Conclusion: Shockwave lithotripsy is a successful modality of treatment in vesical stones; however, it should be used with caution in patients aged >50 years and with a history suggestive of infravesical obstruction.

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[45] Role of nephrometry scoring systems (R.E.N.A.L.-PADUA) in planning nephron-sparing surgery in patients with renal masses: Retrospective study of 88 cases

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Objective: To assess the utility of nephrometry scoring systems (R.E.N.A.L.-PADUA) in planning nephron-sparing surgery (NSS) in patients with renal masses. NSS has become the standard for the management of localised renal masses; however, an objective preoperative evaluation is needed. The nephrometry scores role is preoperative evaluation of the complexity of partial nephrectomy (PN) and evaluation of possible
postoperative complications, and these scores are not yet standardly used in many countries including Algeria.

Methods: We retrospectively evaluated the clinical records of patients who underwent surgical treatment of renal masses between 2013 and 2016 for clinical renal tumours in the Urology Department of Annaba University Hospital, Algeria. All patients underwent preoperative computed tomography or magnetic resonance imaging to define the clinical stage and anatomical characteristics of the tumours. PADUA and R.E.N.A.L. scores were retrospectively assessed for each of the 88 patients. Uni- and multivariate analyses were used to evaluate the correlations between age, gender, Charlson Comorbidity Index, clinical tumour size, PADUA and R.E.N.A.L. complexity group categories, and grade of postoperative complications.

Results: We noticed that only nine patients had NSS and all the others a total nephrectomy; however, 20 of them had a moderate complexity score for PN and seven a low complexity score. Then we compared with the results with the management in 2017 and 2018, the attitude was more liberal with the number of PNs greater than that of the 6 years previously.

Conclusion: A precise stratification of patients with both PADUA and R.E.N.A.L before nephrectomy is recommended to consider the potential threats and benefits of NSS. They are valuable tools to categorise renal tumours based on anatomical features and to prevent patients from abusive total nephrectomies conserving significant nephronic capital.

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[46] Cognitive transrectal ultrasonography-guided targeted prostate needle biopsies based on multi-parametric magnetic resonance imaging findings: Initial experience

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Objective: To report an initial experience of cognitive transrectal ultrasonography-guided targeted prostate needle biopsies based on multi-parametric magnetic resonance imaging (mpMRI) findings. Random biopsy of the prostate is a crude way to identify prostate cancer hoping to hit the area of disease and hence the yield has never exceeded 30%. The introduction of mpMRI has tremendously enhanced our ability to identify specific suspicious areas with significant disease [Prostate Imaging - Reporting and Data System (PI-RADS) 4 and 5] and to target those areas thus improving the detection of significant disease with fewer biopsies.

Methods: In all, 97 consecutive patients with elevated prostate-specific antigen levels and suspicious mpMRI underwent targeted biopsies from the suspicious lesion (~five) and two random biopsies from the non-suspicious areas. The biopsies were performed using cognitive identification of the suspected area on MRI by a team comprised of a Urologist and Radiologist. All patients had routine pre-biopsy preparation.

Results: In all, 55 of 97 patients (57%) had positive biopsies, whilst 41/97 patients (42%) had negative biopsies, and two patients had atypical small acinar proliferation. The median number of cores taken was seven. Of the 55 patients with positive biopsies, 42 had significant Gleason grade ≥7 disease, 27 had bilateral disease and in 11 of these 27 one contralateral side was negative on MRI but positive at biopsy.

Conclusion: Cognitive-targeted biopsies of the prostate based on pre-biopsy MRI mapping for suspicious areas has tremendously enhanced our yield of important disease detection and not insignificant ones. In addition, this is done with fewer biopsies thus reducing potential complications.

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[47] Management and outcomes of mesh complications in female pelvic floor surgery: Results of the York Mesh Salvage Centre

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Objective: To review the management and outcome of complications (erosion, extrusion, pain and obstruction) following urinary incontinence (UI) surgery. Stress UI (SUI) has been treated with synthetic mesh and implants procedures for >20 years with good success rates. A recent review indicated safety and efficacy of mid-urethral slings (MUS) for women with SUI. With increasing public and legal interest in litigation cases related to mesh complications, there is a growing need for surgeons to share their experiences to establish best practice care. York is one of the nationally recognised salvage centres for management of women with mesh-related problems.

Methods: Retrospective review of all women who presented with complications related to mid-urethral tapes and implants to our unit since 2012.

Results: In all, 64 patients referred with complications related to SUI surgery were included; the majority had their initial UI procedure in other units. The International Continence Society (ICS)/International