Objective: To assess the usefulness of the R.E.N.A.L nephrometry score in surgical decision making in patients with renal cell carcinoma (RCC). The R.E.N.A.L nephrometry score parameters are radius, exophytic/endophytic properties, nearness of the tumour to the collecting system or sinus, anterior or posterior location, and location relative to the polar lines. Classification of RCC according to nephrometry score: low complexity score 4–6, moderate complexity 7–9, and high complexity score 10–12 points.

Methods: We looked retrospectively at the imaging of 70 cases of RCC against the operative procedure that was performed.

Results: There were 20 cases with low complexity scores: seven (35%) underwent radical nephrectomy (RN) and 13 (65%) underwent partial nephrectomy (PN). There were 32 cases of moderate complexity: 24 (75%) underwent RN and eight (25%) underwent PN. There were 18 cases of high complexity and all of them (100%) underwent RN.

Conclusion: Of the 20 (35%) cases with low complexity scores the T1a RCC tumours should have been offered PN. Of the 32 cases with moderate complexity scores, 24 (75%) patients with T1b RCC tumours should have been offered PN after discussion of an 8% risk of positive surgical margins. Nephron-sparing surgery should be offered to patients with low or moderate complexity and the R.E.N.A.L nephrometry score can used to aid this decision.

doi:10.1016/j.aju.2018.10.019

[66] Right transperitoneal laparoscopic ureterolithotomy

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Objective: To report our experience of laparoscopic ureterolithotomy and its effectiveness, as this technique is an excellent alternative to ureteroscopy in the treatment of large ureteric stones.

Methods: We present a laparoscopic right lumbar ureterolithotomy in a 55-year-old patient with obstructive pyelonephritis on two lumbar calculi measuring 18 and 20 mm, respectively.

Results: Urinary drainage was ensured by percutaneous nephrostomy, which was placed preoperatively and removed 15 days postoperatively; there were no postoperative complications, and a fast learning curve. Excellent results were obtained, with no residual fragments.

Conclusion: Laparoscopic ureterolithotomy is an effective and reliable surgical procedure with better results (without residual fragments) compared to ureteroscopy.

doi:10.1016/j.aju.2018.10.019

[67] End-to-end anastomotic urethroplasty for post-traumatic complete rupture of the membranous urethra

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Objective: To report our experience and the feasibility of end-to-end anastomotic urethroplasty, as this is an excellent technique for the management of post-traumatic urethral stricture.

Methods: We present an end-to-end anastomotic urethroplasty in a 17-year-old patient who had abdominopelvic polytrauma at the point of impact. Upon review, the lesional balance revealed a splenic rupture with haemoperitoneum and complete rupture of the membranous urethra, clearly visible on anterograde and retrograde opacification, and fractures of the pubis and the orthopedically treated ischium. The patient underwent an urgent splenectomy for haemostasis with suturing of a grievous wound. After a period of 3 months urethroplasty was performed.

Results: Two tips to gain sufficient length of the urethra: the mobilisation of the anterior urethra and the separation of corpora cavernosa in the median line. Two solutions are possible to better individualise the upstream end: the use of a soft fibroscope light or the Beniquet, as in our patient. The urethral anastomosis was performed mucosa against mucosa, the bladder catheter was removed 1-month postoperatively, with a follow-up of 5 years without recurrence.

Conclusion: End-to-end anastomotic urethroplasty is a reliable technique for the treatment of post-traumatic urethral stricture.

doi:10.1016/j.aju.2018.10.020

[68] Presence of viable circulating tumour cells in kidney cancer

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Objective: To evaluate the presence of circulating tumour cells (CTCs) in the peripheral blood of patients with kidney cancer (KC) and the dependence of CTC quantification of surgery, as the presence of CTCs in the peripheral blood of patients with solid tumours is associated with poor prognosis but there are limited data concerning the detection of CTCs in KC.

Methods: Peripheral blood samples from 45 patients who underwent a surgical procedure were evaluated using size-based separation technology for CTCs. In most of the patients there were the three blood collections.

Results: CTCs were detected in 39 (87%) patients with KC.

Conclusion: CTCs were detected in a higher percentage of patients than in other studies. The results show that the technology applied in this study can efficiently capture viable tumour cells in the blood that can be cultured, whilst maintaining their original phenotype. This paper discusses the first successful culturing of human circulating kidney cancer cells for further downstream functional and molecular characterisation.

doi:10.1016/j.aju.2018.10.021

[69] A novel approach for the removal of an inflatable penile prosthesis

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Objective: To describe a novel simple surgical method for the removal of an inflatable penile prosthesis (IPP), with minimal risk of urethral damage that avoids the penoscrotal incision and prevents additional fibrosis. The IPP has been used as definitive treatment for severe erectile dysfunction over last four decades. Although infection of IPPs is rare, such occurrences have critical clinical consequences and require urgent explantation. Removal of an IPP can be challenging, especially for the non-andrologist urologist and young urologists.

Methods: Three incisions are made at the following sites: one incision on each side of the base of the penis, an inguinal incision, and a scrotal incision. Each incision provides direct access to one component of the IPP (cylinders, reservoir and pump).

Conclusion: The classic penoscrotal incision for explanation can disrupt the anatomy, which makes future re-implantation difficult and increases the risks of complications. The present approach provides direct exposure of all components of the IPP without dissection of the adhesions of the previous implantation and reduces the risk of iatrogenic injury to the urethra.

doi:10.1016/j.aju.2018.10.022

[70] Proximal corpora cavernosum approach for management of some penile prosthesis cylinder complications

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Objective: To describe a new proximal corpora cavernosum approach for the management of some penile prosthesis cylinder complications. Penile prosthetic cylinder complications identified postoperatively are traditionally managed by approaching the corpora through the prior penoscrotal incision, risking contamination of the pump’s biofilm and giving poor exposure of the proximal cruras. This new approach addresses postoperative penile prosthesis cylinder abnormalities when they are located at the crura of a corpus cavernosum. This technique avoids any additional dissection of the previous wound, making the second surgical procedure easier and safer for the underlying implant. It also allows an optimal exposure for the required adjustment of the implant.

Methods: The first step of procedure is identification of the affected part of the penis and identification of the type of penile implant anomaly. A 2-cm longitudinal skin incision is carried over the affected crura. A longitudinal incision of the tunica albuginea is done, allowing direct access to proximal part of the affected prosthesis cylinder. The prosthesis’ cylinder is then delivered through this incision allowing management of the problem under direct vision.

Results: Our approach is safe, effective and can ensure that the existing penile prosthesis cylinder problem can be managed without the need to approach it through the traditional approach, which in our opinion may add difficulty to the surgery because of the adhesions from the previous intervention. In addition, using the scrotal approach may add a threat to the implant’s pump and tubing by either iatrogenic injury or possible violation of the surrounding biofilm.

Conclusion: Our suggested approach is safe, simple and effective in managing some penile prosthetic cylinder complications that require access to the proximal crura and can be used for both inflatable and semi-rigid (malleable) penile prostheses.

doi:10.1016/j.aju.2018.10.023