Below the Belt? Unusual presentations of testicular and scrotal pathology
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Background: We document five cases illustrating unusual presentations of testicular and scrotal pathology with accompanying imaging and histological findings. These include; teratoma within an undescended testis, para-aortic paraganglioma mimicking metastatic testicular malignancy, transitional cell carcinoma mimicking metastatic testicular seminoma, herniation of the entire urinary bladder within the scrotum and ectopic testicle within the contralateral hemiscrotum.

Teratoma within an undescended testis
A young adult male, with a background of undescended testis, presents with a short history of abdominal distension and bowel not opening. A plain abdominal radiograph was unremarkable. Both CT and US demonstrate a large pelvic mass (Fig 1 and Fig 2). Ultrasound guided biopsy was undertaken. Histology revealed testicular teratoma. There was no evidence of metastatic disease upon further imaging of the chest and abdomen.

Transitional cell carcinoma mimicking metastatic testicular seminoma
A male in his sixties presented with a several week history of haematuria and bilateral flank pain. He has a background of orchidectomy for previous testicular seminoma. Previous pelvic lymph node and pulmonary metastatic resection had already been performed. An initial non-contrast CT was performed due to poor renal function. In addition to demonstrating an incidental cholecystitis, the right kidney appears abnormal with loss of normal architecture and presence of an abnormal lobulated outline within the renal collecting system (Fig. 3). Given the previous seminoma, metastatic disease was felt most likely. A repeat contrast-enhanced CT demonstrated infiltrative soft tissue within the renal collecting system (Fig. 4). Subsequent right renal biopsy confirms the presence of transitional cell carcinoma.

Para-aortic paraganglioma mimicking metastatic testicular malignancy
An elderly male presented with a several week history of haematuria and intermittent urinary incontinence. There was leakage of urine upon palpation of the hemiscrotum. Unenhanced CT confirms the presence of a left inguinal hernia which contains almost the whole urinary bladder. No radiological evidence of acute strangulation was demonstrated. Incidental note of several bladder stones within. The patient was not fit for surgery, and was discharged with a long term urethral catheter.

Herniation of the entire urinary bladder within the scrotum
An elderly male presented with a large, long-standing left inguinal hernia and 6 weeks of intermittent urinary incontinence. The patient underwent a surgical repair of the hydrocele. Post-operative MRI to evaluate the scrotum further (and exclude further structural renal abnormality) confirms a crossed testicular ectopia. Both testes are seen within the left hemiscrotum in a single sac.

Ectopic testicle with the left hemiscrotum
A young adult male presented for US evaluation of a suspected hydrocele. This confirmed the presence of simple hydrocele with incidental note of an ectopic testicle within the left hemiscrotum. The right hemiscrotum was empty. The patient underwent a surgical repair of the hydrocele. Post-operative MRI to evaluate the scrotum further (and exclude further structural renal abnormality) confirms a crossed testicular ectopia. Both testes are seen within the left hemiscrotum in a single sac.

Conclusion: These cases are intended to highlight unusual presentations of both common and uncommon testicular and scrotal pathologies. While some diagnoses may be clear on imaging alone, it is important to use all of the clinical and radiological information available (knowledge of an undescended testis, for example) to suggest an ‘outside the box’ diagnosis if appropriate.