CASE REPORT

Torsion of an intraperitoneal undescended seminomatous testicular tumour

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SUMMARY

A 42-year-old man presented acutely with lower abdominal peritonism and a medical history of a right orchidopexy as a child. Further history from his mother revealed that during the procedure the left testicle could not be found. In view of his unusual history and the nature of the pain a CT scan was performed demonstrating a 10×8 cm solid mass above the bladder. The mass was removed electively and revealed a torted left testicular mass. Histopathology confirmed a torted seminomatous tumour. This case highlights the importance of returning undescended testes to the scrotum or confirming absence to preserve function and ease surveillance of potential future neoplastic transformation. The current management for impalpable undescended/absent testicles involves radiological imaging, inguinal and/or laparoscopic exploration and orchidopexy before 18 months of age.

BACKGROUND

This case highlights the importance of returning an undescended testicle to the scrotum or confirming the absence of the testicle (anorchia) through radiological and surgical exploration. Furthermore, it emphasises the potential sequelae of such actions, as in this case the patient presenting numerous years later with an intraperitoneal testicular malignancy.

CASE PRESENTATION

A 42-year-old man presented with a 2-day history of suprapubic pain with sudden onset. He described nausea but no anorexia, change in bowel habit or urinary symptoms. Besides a right orchidopexy as a child he had no relevant medical history and took no regular medication. Examination elicited suprapubic peritonism, surgical scars from a bilateral orchidopexy, with a normal right testicle

but absent left testicle. Collateral history from the patient's mother confirmed that during his orchidopexy his left testicle was not located and no further investigations or procedures were performed.

INVESTIGATIONS

Midstream urine—normal, C reactive protein 53, white cell count 12.

CT abdomen pelvis: 10×8 cm solid mass above the bladder, which had characteristics of a neoplastic lesion (figure 1A–C). Subsequent CT of the thorax was normal. α -Fetoprotein, β -human chorionic gonadotrophin (β -HCG), lactate dehydrogenase all within normal reference range.

TREATMENT

In view of the findings on CT, emergency surgery was not performed. The patient was treated with analgesia and discharged with an outpatient CT of the thorax to ensure there was no metastatic disease. The mass was excised 2 weeks later with a laproscopically assisted approach and placed in a laparoscopic retrieval bag before extricating through a small pfannenstiel incision.

OUTCOME AND FOLLOW-UP

The patient's recovery was uneventful and he was discharged on postoperative day 1. Histopathology confirmed a torted seminomatous testicular tumour with no indication of local or distant spread (figure 2A, B). He was well at 6-week follow-up and is not receiving any adjuvant therapy.

DISCUSSION

Congenital undescended testis occurs in 2–9% of male newborns.¹ Although undescended testicles may descend spontaneously the majority require surgical intervention. Returning the testicle is

Figure 1 CT of the abdomen demonstrating a solid 10×8 cm pelvic solid tumour (A, axial; B, coronal; C, sagittal).

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Figure 2 Histopathological slides of a testicular tumor (A, seminoma tumor cells stained with H&E; B, tumor cells immunostained with antiplacental alkaline phosphatase).

important to improve long-term fertility particularly in bilateral cases and to allow for self-examination in view of the greater malignant risk.² A study demonstrated that returning the testicle to the scrotum before the age of 13 reduced the risk of malignancy.² There is consensus that all testicles should be returned to the scrotum if possible.³ Cryptorchidism (the absence of a testis from the scrotum) can present electively or emergently as in this case. In this case the patient presented acutely with severe lower abdominal pain of sudden onset. The patient's history of a bilateral orchidopexy with an absent testicle and corroborating history from his mother heightened our suspicion that this presentation could be related to his medical history. Although undescended testes are common, torsion of testicular tumours are rare, particularly of the intraperitoneal variety.^{4 5} The modern management of undescended testicles is to return them to the scrotum before the age of 1 or at the latest 18 months.^{6 7} Options include: hormonal modulation for

example HCG; gonadotrophin-releasing hormone (low success rate and is not recommended); or surgical orchidopexy. Of all the cases of undescended testicles 92% have a successful orchidopexy via an inguinal approach⁸ with laparoscopic exploration used for impalpable undescended testis. Although we cannot prevent future malignant conversion of undescended testis, orchidopexy increases the likelihood of earlier diagnosis and reduces malignant conversion as well as complications such as torsion.

Learning points

- ▶ Undescended testicle is the most common urological congenital abnormality.
- ▶ Undescended testicles are associated with lower fertility and malignant conversion.
- ▶ Undescended testis should be returned to the scrotum ideally before 18 months of age which reduces the risk of malignant conversion.
- ▶ In cases of non-palpable undescended testis, laparoscopy is considered the most sensitive diagnostic tool.
- ▶ Taking a careful history was key in this case as the patient had lower abdominal peritonism but in view of the history a CT was performed rather than emergency surgery.

Contributors FDM, AH, MEK and DCW cared for the patient during his two emergency and elective admissions. FDM drafted the manuscript and this was reviewed and revised critically for content by all authors. The final version was approved by all authors.

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