Obstruction of an ileal urinary conduit in an incarcerated right inguinal hernia

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ABSTRACT

We present the case of a 72-year-old man with a history of anuria from his ileal conduit 15 months following its formation. That conduit had become incarcerated in a right-sided inguinal hernia. The patient presented with anuria and an acute kidney injury. A clinical diagnosis of an incarcerated hernia was made, and he was taken to theatre for reduction and repair of the hernia. On removal of the conduit from the hernial sac, it began to drain immediately. He made a full recovery, with normalisation of his renal function.

KEYWORDS

Ileal conduit – Obstruction – Inguinal hernia

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Case History

A 72-year-old man presented acutely to the urology team with a 12-hour history of anuria from his ileal conduit. He had undergone a radical cystourethrectomy with ileal conduit formation 15 months previously for a pT2 N0 Mx G3 transitional cell carcinoma of the bladder. A coincidental adenocarcinoma of the prostate (Gleason score 6) was identified in the specimen.

The patient was known to have longstanding bilateral inguinal hernias. The intention was for a synchronous herniorrhaphy to be performed at the time of radical pelvic surgery. For some reason, this never occurred. On admission, examination confirmed an irreducible right inguinal hernia, which was locally tender. There was also a reducible left inguinal hernia on the contralateral side. There were no signs of obstruction.

Initial blood tests revealed a white cell count of $18.5 \times 10^9/l$, a creatinine of 370mol/l and a urea of 17mg/dl . Six hours following admission, the patient reported increasing pain in relation to his hernia. A repeat urea, electrolytes and creatinine test revealed his creatinine had increased to 448mol/l and his urea was now 22mg/dl . A clinical diagnosis of an incarcerated inguinal hernia containing the ileal conduit was made and he was taken urgently to theatre without imaging.

At operation, the ileal conduit was found to be incarcerated in the hernial sac. It was oedematous and distended but viable. As soon as the conduit was removed from the hernial sac, it began to drain good volumes of urine. The hernial sac was opened and in view of the incarceration, the hernia was repaired with Prolene® (Ethicon, Somerville, NJ, US) sutures rather than mesh. The patient made an uncomplicated recovery with normalisation of his renal function on discharge.

Discussion

Historical series have quoted high complication rates following radical cystectomy for bladder cancer.¹ More recent series from high volume centres have reported low complication rates and no difference in perioperative mortality in primary or salvage cystectomy.² To our knowledge, there has only been one other report on an incarcerated hernia causing mechanical obstruction to an ileal conduit.³ The surgical maxim of pain and increased tenderness over an irreducible hernia indicates obstruction and impending ischaemia. In our case, there was also anuria, leading to a clinical diagnosis of an obstructed ileal conduit, which was confirmed at surgery.

There was no obvious reason why the diversion had migrated through the neck of the hernial sac. In particular, the ileal conduit was not thought to be excessively redundant, and the stoma was sited correctly midway between the umbilicus and the anterior superior iliac spine. We would suggest that such rare pathology is considered in any patient presenting in this unusual way.

References

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