OMENTAL INTERPOSITION FOR REPAIR OF A VESICO-ACETABULAR FISTULA

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Vesico-acetabular fistula occurs as a complication after total hip replacement. Because it is uncommon, only a few published reports have described the surgical techniques involved in its repair. We report a case of vesico-acetabular fistula successfully managed using multilayered bladder closure and omental interposition.

CASE REPORT

An 84-year-old woman underwent revision of a previous right total hip replacement for degenerative joint disease. Shortly after surgery the metallic hip prosthesis became infected and required removal. The acetabular space was preserved using polymethylmethacrylate cement. Persistent cellulitis and drainage of clear yellow fluid from the hip incision led to suspicion of a vesico-acetabular fistula. Urethral catheter bladder drainage for 4 weeks was unsuccessful and, subsequently, the patient was referred to our facility.

A computerized tomography cystogram confirmed the diagnosis of vesico-acetabular (fig. 1, A). Cystoscopy revealed a solitary fistulous tract between the right lateral bladder wall and acetabular hemispheric shell which was cannulated using a 5Fr ureteral catheter (fig. 2). Through an infraumbilical extraperitoneal incision, the right lateral aspect of the bladder was mobilized off of the adhered pelvic sidewall and the fistula was identified. A longitudinal cystotomy was made at the dome allowing bladder exploration and precise excision of the cannulated fistulous tract. The most challenging aspect of this procedure involved dissection and excision of the fistulous tract in its entirety as it coursed towards the acetabulum. After dissection to well vascularized tissue, a multilayered tension-free bladder closure was performed. To secure the repair, omentum was mobilized through a small peritoneotomy and interposed between the right pelvic sidewall and bladder. A cystogram (Fig. 1) after 3 weeks of continuous uninterrupted bladder drainage revealed successful closure of the vesico-acetabular (fig. 1, B).

DISCUSSION

Acetabular hemispheric shells are routinely used for total hip replacements and their revisions. Placement of screws exposes the bladder as well as other intrapelvic structures to iatrogenic injuries, particularly in revision cases. Urological and orthopedic surgeons should be aware of these potential complications, appropriate diagnostic evaluation and management. Surgical repair of vesico-acetabular can be challenging. Although Tripp et al successfully repaired a vesico-acetabular using a multilayered tension-free technique, they did not advocate use of a vascularized pedicle interposition. We recommend adequate mobilization of the bladder, complete excision of the fistulous tract and a tension-free watertight closure. Omental interposition might be a prudent adjunctive technique in more difficult cases.

REFERENCES