Case Report

A 75-year-old woman underwent anterior or exenteration and formation of ileal conduit for invasive bladder carcinoma in December 2015. She did develop a vaginal prolapse 4 months later and was referred to a Urogynecologist who performed vaginal vault prolapse repair incorporating arcus support and sacrospinous fixation using no mesh in November 2016. Unfortunately, her vaginal prolapse recurred in April 2017. She was referred to our clinic in July 2017 when we found that she had developed a stage 3 anterior enterocele with superficial vaginal ulceration, a vaginal vault prolapse with a vaginal length of 6 cm, and a stage 2 rectocele. On the other hand, she was taking Prednisone for treating Rheumatoid arthritis. Further vaginal surgery with the use of mesh was discussed with her in extension, with special attention to postoperative mesh complications. She was advised to use local Oestrogen cream beforehand. Her surgery was carried out in August 2017: Repair of anterior enterocele using Gynemesh®, ilio-coccygeal vault suspension and rectocele repair with colpocleisis. At 10 months follow-up she remains prolapse free.

The surgical procedure was performed under general anaesthesia with endotracheal intubation. On examination in theatre, the vaginal mucosa was found to be ulcerated and with a pinpoint fistula draining peritoneal fluid. A median colpotomy was performed. The ulcerated vaginal skin was dissected off and resected with particular care to preserving the densely adhered peritoneal layer and to avoiding damage to the small bowel loops behind. A sharp release of filmy adhesions between the small bowel and the peritoneal layer was carried out at the same time. The peritoneal layer, which was densely adhered to the vaginal skin, was then dissected away completely (Figure 1). Two flaps of peritoneal layer were created after the blunt lateral dissection and enlargement of the retropubic space with the purpose of facilitating the overlap of the above layers creating a good support for the extraperitoneal placement of a polypropylene mesh (Gynemesh®. Ethicon) that was cut and shaped accordingly. It was then attached to the under-surface of the pubic symphysis using PDS sutures and positioned under no tension. The purposely created proximal mesh arms were attached bilaterally to the ilio-coccygeal fascia correcting at the same time the vault prolapse. The vaginal mucosa was closed with interrupted sutures of 2/0 vycril. This was followed by a rectocele repair using PDS sutures for the rectovaginal fascia and a perineal reconstruction using 2/0 vycril. There were no intra or postoperative complications. Local estrogen therapy with Ovestin cream ™Medsafe was started and continued for good after surgery. At 8-month follow-up there was no prolapse recurrence and no mesh erosion. The vaginal length was measured at 5 cm and the diameter at 1.5 cm.

Discussion and Conclusions

Long-term studies clearly support radical cystectomy as the most adequate surgical treatment for invasive bladder carcinoma. In an effort to increase the patient’s quality of life after the above procedure the orthotopic bladder substitution and the ileal conduit (IC) procedure are usually performed afterwards; with an IC frequency of 33% (22.6-64%) reported at a 2007 Consensus Conference on Bladder Cancer and the IC as the most common urinary diversion procedure in the elderly. Unfortunately, early and late (>3 months) postoperative complications have been described afterwards, including anterior enterocele as the result of...
the loss of all the anterior and apical support of the vaginal canal.

An abdominal/laparoscopic approach using mesh has been described for repairing an anterior enterocele but there are still concerns with this approach in view of the distorted anatomy after an exenteration, increasing the risk of intraoperative bowel damage and the development of adhesions or bowel obstruction caused by mesh as it is placed intraperitoneally. On the other hand, the vaginal approach is not free of complications. Colo-vaginal fistulas have been reported with the use of trans-vaginal Vicryl-Prolene mesh but with no extraperitoneal dissection.

A transvaginal approach using mesh has been reported using Elevate™ mesh placed extraperitoneally. Our report confirms the feasibility of a transvaginal approach when using mesh that is positioned extraperitoneally to correct a recurrent anterior enterocele. The use of vaginal mesh should be considered as an option for the surgical treatment of anterior enterocele following radical cystectomy especially when a previous pelvic organ prolapse repair with native tissue has failed. We acknowledge the relative short time of postoperative follow up at 10 months, but we are encouraged to report no early postoperative complications with the above technique.

References