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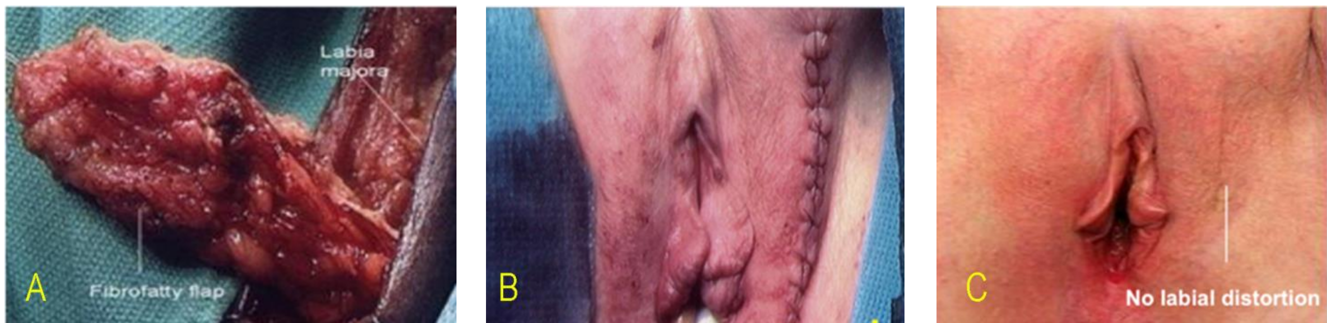
MARTIUS LABIAL FAT PAD PROCEDURE: TECHNIQUE AND LONG-TERM OUTCOMES

Hypothesis / aims of study

To demonstrate the technique of Martius labial fat pad (MLFP) graft and to study its long-term morbidity as an interposition material in vaginal reconstruction procedures at a tertiary institution.

Study design, materials and methods

Surgical technique In this case, a MLFP was used after completing a transvaginal urethrolysis to fill the space around the urethra and prevent rescarring. A vertical incision (average 8 cm) is made over the labia majora from the level of the mons pubis down towards the level of the fourchette, depending on the length of fat pad required. The incision is deepened to the level of the labial fat pad, which can be gently grasped with a Babcock clamp and mobilized on an inferior pedicle providing a postero-inferior blood supply to the graft based on branches from the external pudendal artery. Blood supply for the MFLP varies with description of both superior and inferior blood supplies. We and others have used the postero-inferior blood supply, while others have preferred a superior blood supply. Both approaches seem to provide well-vascularized fat pad grafts.
Dissection is continued laterally and medially with attention to avoid being too superficial medially to prevent skin retraction and secondary deformation. Once a sufficient length is achieved, the flap is gradually divided superiorly.
The fat pad graft is then detached posteriorly off the underlying ischiocavernosus and bulbocavernosus muscles, leaving a broad base inferiorly to preserve vascularity.
After complete mobilization, a figure of eight absorbable suture is placed at the extremity of the flap to facilitate transfer alongside the vaginal wall (Fig A). A vaginal tunnel is created with long Metzenbaum scissors and/or a ring forceps and widened to accept at least two fingers to offset compression of the blood supply. The pedicle graft MFLP once tunneled can be secured in place with absorbable sutures. The incision is closed in layers over a small labial drain, which is removed within 24-48 hours postoperatively (Fig B). Labial incision is barely noticeable in the long-term (Fig C).



Results

Between 1996 and 2011, 122 women were entered into a prospective surgical database and met inclusion criteria, with 25 excluded for lack of follow up details beyond 6 months or death. Patients were contacted by mailed survey and/or structured telephone interview with Quality of Life score, validated FSFI questionnaire and a specific question addressing Martius harvest site i.e. 'pain or numbness in labia'. Mean age was 54 years (19-78), with mean BMI 28 (19-43) and mean follow-up of 85 months (6-202). Indications for MLFP included vesicovaginal fistula (20), bladder outlet obstruction requiring urethrolysis (60) and others (17) (bladder neck closures, urethral diverticulum, excision of duplicate urethra). No peri-operative complications were recorded. Of the 97 women, 79 (81%) had normal sensation with 5 (5%) reporting pain and, 13 (14%) reporting numbness, respectively. Nine (7%) reported distortion of labia majora. Of the 29 women reporting sexual activity, only 26 (27%) responded to FSFI questionnaires with equivocal sexual function outcomes between all 3 surgical groups (ref. 1).

Concluding message

This video demonstrates our harvesting procedure for MFLP while our reported experience indicates minimal early and delayed morbidity at mean 7 years follow up.

References

1. Urology 82(6) 1261-1266, 2013

Disclosures

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