

THE REPAIR OF POST-TRAUMATIC VAGINAL STENOSIS USING LOCAL THIGH FLAPS

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Minor degrees of vaginal stenosis, especially lesions close to the vaginal introitus, can be dealt with safely and satisfactorily by local transposition flaps. The more extensive varieties of vaginal stenosis, sometimes amounting to virtual obliteration of the vagina by scar tissue, are a far greater surgical challenge.

There are several causes of "post-traumatic" vaginal stenosis and the aetiological pattern in any reported series obviously reflect the geographical and social background of the patients and the surgical skills that are available locally. In the Western world, most cases of severe vaginal stenosis are likely to be the result of trauma to the pelvis and perineum following serious accidents, over-zealous repairs of rectocele or cystocele, particularly those repairs complicated by severe infection, and stenosis following treatment by radiotherapy and/or surgery for malignant disease involving the external genitalia, the rectum and the vagina, especially lesions extending into the pelvic floor.

By contrast, the surgeon working in the tropics and in the under-developed parts of the world will see vaginal stenosis more often as a complication of vaginal damage due to prolonged obstructed labour and disastrous obstetrical management or the late effects of tropical infections such as lymphogranuloma. The efforts of native medicine men or so-called "healers" to cure infertility or punish infidelity may produce virtual obliteration of the vaginal cavity. A typical example of this severe stenosis is seen in some Middle Eastern countries following the deliberate insertion of crude rock salt into the vagina.

Severe stenosis of this degree can be treated along the conventional lines advocated by McIndoe for congenital atresia of the vagina, but only on condition that the scar is completely excised before the insertion of a split skin graft. The amount of bleeding encountered often makes it prudent to do the operation in 2 stages, namely packing the vaginal cavity after the scar excision and grafting the defect some 7-10 days later at a second operation. Even under ideal conditions a complete "take" of the graft cannot be guaranteed and the post-operative co-operation demanded of the patient in keeping the grafted cavity dilated often results in a disappointing and inadequate reconstruction.

Experience with 3 cases of vaginal stenosis suggests that the use of bilateral partially de-epithelialised thigh flaps could offer a solution to this problem.

TECHNIQUE

With the patient in the lithotomy position, the block of scar on each lateral wall of the vagina is excised to produce a sufficiently large vaginal cavity.

On the medial aspect of each thigh, a long broad flap is raised. The flap is de-epithelialised at its base leaving sufficient normal skin on the distal part of the flap to resurface completely the raw surfaces that have been created by the scar excision in the vagina.

The flaps are then rotated through 180° and inserted through a subdermal tunnel into the vaginal cavity, where they are sutured in position. Care must be taken not to produce dangerous kinking at the base of the flap. The donor site on the thigh is closed

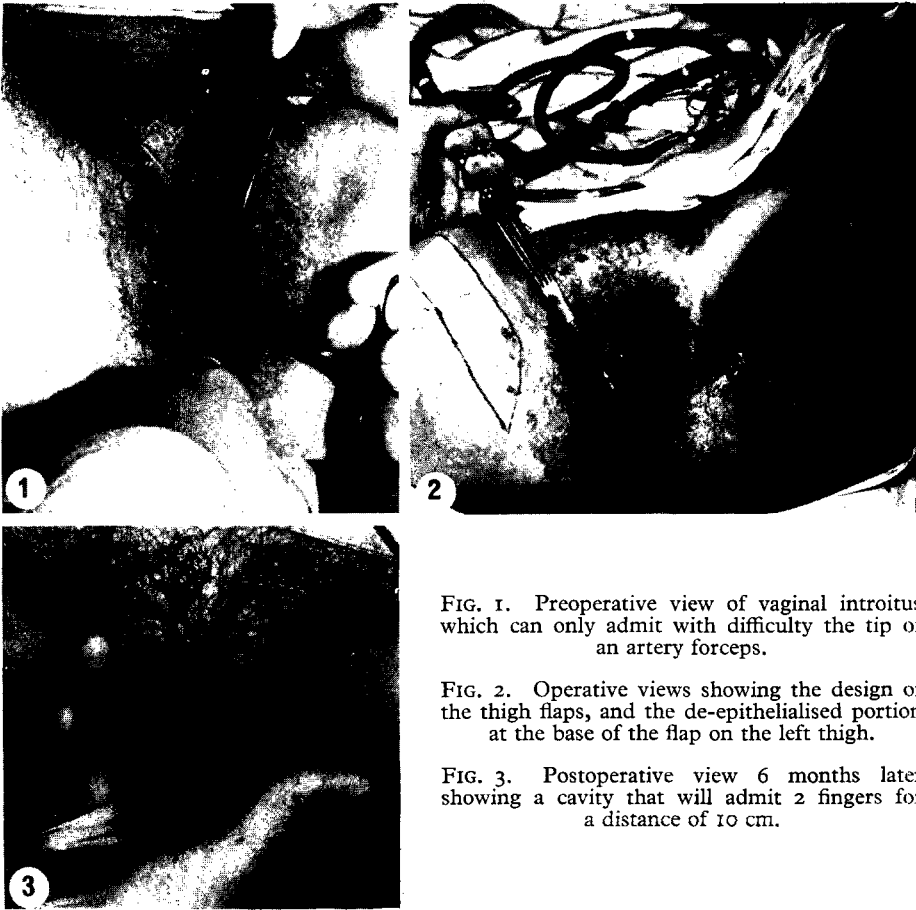


FIG. 1. Preoperative view of vaginal introitus which can only admit with difficulty the tip of an artery forceps.

FIG. 2. Operative views showing the design of the thigh flaps, and the de-epithelialised portion at the base of the flap on the left thigh.

FIG. 3. Postoperative view 6 months later showing a cavity that will admit 2 fingers for a distance of 10 cm.

by careful direct suture. It may be necessary to carry out a secondary adjustment later to the base of the flap to avoid excessive bulk and to relieve intertrigo, but this has not been required in the patients I have so far treated.

DISCUSSION

In the 3 patients in this small series, the stenosis was close to the introitus and the length of the stenosed segment varied from 1 to 2.5 cm. All the patients benefited from the operation and there were no complications. The period of follow-up is now over 1 year and there have been no signs of recurrence of the stenosis.

It is suggested that this technique might also be useful in the treatment of the more severe degrees of vaginal stenosis to which reference was made in the opening paragraphs of this paper.