Free graft anoplasty

Technical note

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Free graft foreskin anoplasty

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Abstract

Aim Reconstruction of a stenotic anal canal and repair of a stenotic perineal colostomy using a free graft foreskin.

Method The use of free graft foreskin anoplasty was described by Freeman for the treatment of mucosal prolapse in pediatric patients. The original surgical technique was modified and employed in two adult patients for the reconstruction of the anal region.

Results The graft, in both cases, took well with a satisfactory functional and morphological recovery of the anal canal.

Conclusion Free graft foreskin anoplasty, has proved to be an effective solution to stenosis in the anal canal following major local surgery.

Keywords Anoplasty, foreskin, graft, anal stenosis

Indications

The use of a free foreskin graft in the reconstruction of the anal canal was introduced by Freeman in 1984 for the treatment of mucosal prolapse in paediatric patients [1]. Preserving the principle of the free graft, the original surgical technique was modified and employed for the reconstruction of a stenotic anal canal and repair of a stenotic perineal colostomy.

Method

After a routine circumcision, the foreskin is turned inside, out exposing the mucosal surface on the outside (Fig. 1). After excision of the stenotic part of anal canal, the foreskin graft is positioned with the mucosal sheet coated on the inside of the neo-anal canal. The graft is sutured proximally to the mucosa of the residual anal canal and distally to the perineal skin (Fig. 2). Alternatively, the foreskin graft can be cut longitudinally and positioned with its skin surface on the outside and the mucosal surface on the inside to cover the excised stenotic scar (Fig. 3). The graft is anastomosed to the colonic mucosa and to the perineal skin.

The technique was first employed in a patient aged 58 years, with severe perineal *maladie de Verneuil* (hidradenitis suppurativa), undergoing wide excision includ-

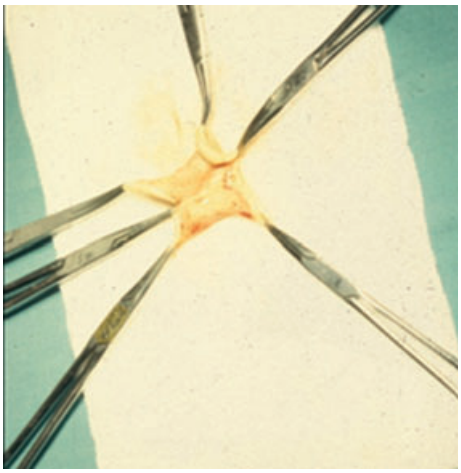

Figure 1 Routine circumcision and preparation of the foreskin graft.

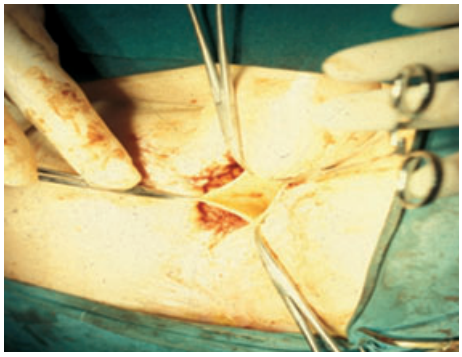

Figure 2 First case: positioning of the graft.

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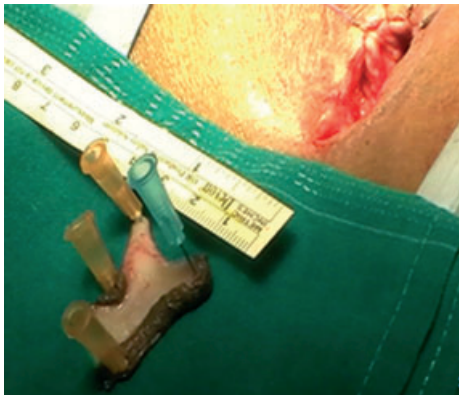

Figure 3 Second case: positioning of the graft after cutting longitudinally.

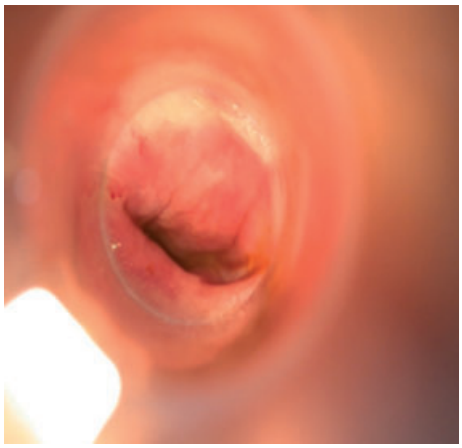

Figure 4 First patient: the appearance of the anal canal.

ing the lower part of the anal canal. The wound was covered with a myocutaneous gracilis flap and a fasciocutaneous gluteal sliding flap. An anastomosis was made between the preserved upper anal canal and the skin of the myocutaneous gracilis flap. After 2 months, the anastomosis showed significant stenosis which was treated by the foreskin anoplasty technique (Fig. 2). The graft took nicely and after 5 years the anal canal showed a complete morphological and functional recovery (Fig. 4).

The second use of the technique was in a patient with anal cancer treated by abdominoperineal excision of the rectum with total anorectal reconstruction with a dynamic graciloplasty. A stenosis of the perineal colostomy occurred after 2 months due to ischaemia of the last 2 cm of the colonid neorectum. The patient underwent a foreskin anoplasty. Currently, after 1 year, the graft has taken well with satisfactory function.

Discussion

Free graft foreskin anoplasty, after routine circumcision, has proved to be an effective solution to stenosis in the anal canal following major local surgery. The operation is indicated when the loss of anorectal mucosa is extensive and the other reconstruction techniques are not suitable.

Reference

1 Freeman NV. The foreskin anoplasty. *Dis Colon Rectum* 1984; **27:** 309–13.