

CASE REPORT

Patch bulging after plaque incision and grafting procedure for Peyronie's disease. Surgical repair with a collagen fleece

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Summary *The incision/excision and grafting techniques (PIG) for surgical therapy of Peyronie's disease (PD) have gained popularity in recent years. Several different graft materials have been used but the ideal graft has yet to be established. The use of grafting materials could cause complications. In the daily clinical practice it will always be more frequent to manage complications arising from their use. We present herein the case of a patch bulging repaired with a ready-to-use collagen fleece (Tachosil[®], Takeda, Linz, Austria, Europe) in a 61 years old man subjected to intervention of geometric corporoplasty with Paulo Egydio technique using an acellular collagen material (Xenform[®] patch, Boston Scientific, Natick, MA, USA) as graft. We also discuss the possible implications of PIG procedure.*

KEY WORDS: Patch bulging; Corporoplasty; Complication; Collagen fleece; Acellular collagen material.

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INTRODUCTION

Peyronie's disease (PD) is still a surgical disease. Medical treatments have been plagued with flawed results, poorly designed studies, and conflicting data. Surgery remains the mainstay in treatment (1). From the classic Nesbit and modified Nesbit operation, surgical treatment has evolved through penile plication procedures and incision/excision and grafting techniques (PIG), combined or not with the inflatable penile prosthesis implants in case of patients with moderate to severe erectile dysfunction and complicated plaque defects. The PIG procedures are the ideal treatment choice for PD in case of good erectile function with complex or > 60° curvatures, destabilizing hinge defects and/or shorter phallus (2). Several different graft materials have been used but the ideal graft has yet to be established. The PIG have gained popularity in recent years so that, in the daily clinical practice, it will always be more frequent to manage complications arising from the use of grafts. We present herein the case of a patch bulging repaired with a ready-to-use collagen fleece (Tachosil[®], Takeda, Linz, Austria, Europe). We discuss the possible implications of PIG procedure.

CASE REPORT

A 61 years old man presented at our Urologic Section for the appearance of a swelling in the dorsal left side of the

third medium of the penis. Pathological remote history reported eight years before a clear cell renal carcinoma treated and adjuvant chemotherapy. From that period the patient begun to complain of moderate erectile dysfunction and a worsening left lateral and dorsal penile bowing of about 45°. Elsewhere, patient underwent a geometric corporoplasty with Paulo Egydio technique using an acellular collagen material as graft (Xenform[®] patch, Boston Scientific, Natick, MA, USA).

Three months after surgery, the patient noted the gradual increase of an irregularity in the middle third of penile shaft and reported a complete deterioration in the ability to get a valid erection despite the absence of curvature of the penis. A non-reducible edema at the circumcision site coexisted. A basal ultrasound of the penis was performed (Figures 1-2a-2b) with detection of a cystic image of the tunica albuginea of the corpus cavernosum. Its echostructure was predominantly hypoechoic, the size was 14.1 mm x 8.6 mm x 8.4 mm. Needle aspiration did not allow to get the resolution of the cystic dilatation. After discussing the case with the patient we decided to proceed to surgical correction of the anomaly. Despite the erectile dysfunction, the patient refused the placement of a penile prosthesis. After penile shaft degloving (Figures 3-4), surgical procedure consisted in cystic dilatation removal and replacement of the defect created with suitably shaped patch of collagen fleece (Tachosil[®], Takeda, Linz, Austria,

Figure 1. Pre operative basal ultrasound evaluation of patch.



No conflict of interest declared.

Figure 2a.
Cystic anechoic lesion of patch, transversal view.



Figure 2b.
Cystic anechoic lesion of the patch, longitudinal view.



Figure 3.
Intraoperative aspect of patch bulging after penile degloving.



Figure 4.
Intraoperative aspect of patch bulging after penile degloving. The dorsal neurovascular bundle wasn't isolated..



Europe) without need of dorsal neurovascular bundle isolation. The fleece was manually compressed on the defect for 3 minutes and additional fixation by sutures was not performed. The procedure was concluded by reconstruction of Buck's fascia. Circumcision was revised. Histological findings consisted in keloid dense fibrous tissue with chronic lymphocytic inflammation and giant cells containing birefringent foreign material. The postoperative course was regular. The patient was discharged 48 hours after removal of the draped medication and of the bladder catheter. Follow up at 15 days highlighted the disappearance of penile deformity and the normal healing of the skin at circumcision site. Twenty four months later evaluation was performed with basal penile ultrasound and penile dynamic echo-color-Doppler (Figures 5-6a-6b). After intracavernous injection (ICI) with 10 µg of Prostaglandin (PG) we observed an erection of type 3 according to erection hardness score (EHS) (3) without penile curvature. The patient referred a satisfactory sexual activity by 10 mcg PG ICI.

CONCLUSIONS

Cystic dilation of the graft is a possible event that has become more frequently over time. The etiology may be related to an immediate post surgery bleeding or an implicit flaw of geometric technique used. The decision on the surgical treatment has to consider the clinic and the patient requests. The urologists involved in the andrological field must be aware of possible complications related to PIG procedures. In our experience *Tachosil*® may be a good material of choice to restore the corpus cavernosum defect.

Discussion and supplementary references are posted on www.aiua.it

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