

Three-component hydraulic penile prosthesis malfunction due to penile fibrolipoma secondary to augmentative phalloplasty: A case report

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Summary *Fibrolipomas are an infrequent type of lipomas.*

We describe a case of a man suffering from subcutaneous penile fibrolipoma, who twelve months earlier has been submitted to augmentative phalloplasty due to aesthetic dysmorphism. The same patient three years earlier has been submitted to three-component hydraulic penile prostheses implantation due to erectile dysfunction.

After six months from removing of the mass, the penile elongation and penile enlargement were stable, the prostheses were correctly functioning and the patient was satisfied with his sexual intercourse and life.

The diagnostics and surgical characteristics of this case are reported.

KEY WORDS: *Penile fibrolipoma; Augmentative phalloplasty; Penis size; Penile dysmorphism; Three-component hydraulic Penile prosthesis.*

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INTRODUCTION

As described in literature, penis length and width are an issue of social relevance (1, 2).

Some men otherwise considered as normal may require augmentation cosmetic surgery as a result of an abnormal perception of the dimension of the organ (penile dysmorphism). Dysmorphism may be a functional problem (a man with normal penis but unsatisfied with its size during erection) or aesthetic problem (a man whose penis is normal but who is unsatisfied with its dimension in flaccid state) (3-5). Most of elongation and enlargement phalloplasty surgeries have a more apparent effect rather than real effect, rising an increase of the penile size that is more evident during flaccid state rather than during erective status and these operations are exclusively performed in case of patients with aesthetic dysmorphism (3-6). In these men a simple operative procedure can be used to increase the volume of the penis by autologous fat transfer. At the same time, the penis can be lengthened by incision of the suspensory ligament below the symphysis, so called "augmentative phalloplasty" (7-10). We report a case of subcutaneous

fibrolipoma in a patient submitted in the previous twelve months to augmentative phalloplasty due to aesthetic dysmorphism. The same patient two years earlier has been submitted to three-component hydraulic penile prostheses placement due to erectile dysfunction.

CASE REPORT

We describe the case of a 52-years-old man who presented small penis and erectile dysfunction not responding to PDE-5 inhibitors or PGE1 infusions. After urological consultation he agreed to undergo an three-pieces hydraulic prostheses placement three years before. The surgery was performed with a standard peno-scrotal approach. The same patient agreed to undergo an augmentative phalloplasty twelve months before resulting in penis enlargement. These last procedure was performed on May 2013. Under general anaesthesia, the sovrapubic liposuction was performed. Fractions of fat were centrifuged, purified of serum and oil, put into 2-ml syringes. Incision with a scalpel at the stretched preputium between two forceps was performed. By inserting and pulling back the Coleman's Kobra cannula, purified body fat was transferred from the penis root upwards. Overall 45 ml of purified fat cells was transferred.

At the end of surgery the patient obtained an increase of 3 cm in circumference. Before augmentation with autologous fat transfer the circumference of the penis in flaccid state was 8,5 cm, after augmentation with autologous fat transfer the circumference of the penis was 11,5 cm. Twelve months later the patient was found to have a subcutaneous dorsal penis lump.

This lump caused pain during erection and difficulty during a sexual intercourse because of the limited penile extension during erection. The trapped penis caused prostheses malfunctioning due to mass compression on cylinders and on the connections between cylinders and pump (Figure 1).

During penile examination, a lump of approximately 5 × 5 × 4 cm was palpated at the basis of penis, at the level of the proximal third and on the dorsal surface of the penis. On palpatory examination, the lump was hard in

Figure 1.
Showing lump at the base of the penis.



Figure 2.
Infrapubic incision.



Figure 3.
Dissection of the mass from penile neurovascular bundle and from the prostheses cylinders.



Figure 4.
Dissection of the mass from the connections between cylinders and the pump.



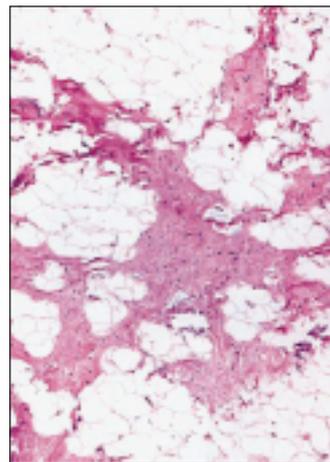
Figure 5.
Evaluate the correct functioning of the system.



Figure 6.
The macroscopic view of lump during removing.



Figure 7.
Histologic characteristics of fibrolipoma; the section shows intensive mature adipocytes mixed with fibrous tissue.



consistency, painless, mobile under the palpating finger. Ultrasonography of the mass was performed using B-mode equipment (Sonoscape S8, Milestone Company) and a linear 8.0 MHz transducer (L741, Milestone Company). Ultrasonography showed a structure with a loss of homogeneous echogenicity with multiple hyperechoic zones. Under general anesthesia a transverse infrapubic incision of 3 cm at the base of penis was performed to remove the lump (Figure 2) it was dissected from the lateral subcutaneous tissue easily but it was very difficult to dissect it from the penile neurovascular bundle and from the prostheses cylinders placed laterally respect to dorsal nerves of neurovascular bundle (Figure 3). The connections between cylinders and the pump were freed from any fibrotic tissue (Figure 4). Attempt to activate the functioning of the sys-

tem was successful (Figure 5). The mass (5 × 5 × 4 cm) had an elastic texture and was enclosed by a smooth, shining, vascular capsule (Figure 6). On the cut surface, a large amount of the interior of the mass was milky-white and composed of homogeneous adipose-like tissue. The removed tissue was submitted to histological examination. As standard procedure the tissue samples of the mass were fixed in 10% buffered formalin and processed for paraffin embedding. The sections were deparaffinised, dehydrated and stained with Haematoxylin and Eosin. Microscopic histopathological examination of the mass revealed adipose tissue with diffusely distributed mature adipocytes and septa of fibrous connective tissue with proliferating fibroblast (Figure 7). On the basis of these clinical and histologic characteristics, a diagnosis was done of a subcutaneous penile fibrolipoma. There were no post surgery complications. After six months from third surgery, the penis elongation and prostheses functioning were good and stable, finally the patient was satisfied with his sexual intercourse and his sexual life. The satisfaction of surgical outcome was also assessed at 12 months following the surgery directly asking to the patients "Are you satisfied with the result of your surgery"?

The patient was satisfied with the outcome of operation. At 12 month, during the postoperative follow up visit, the patient reported a normal three-pieces hydraulic prostheses activation and was satisfied with his sexual life.

DISCUSSION

Fibrolipoma is a histological variant of lipoma, the aetiology of this condition is not well known, usually in other organs this lesion is a rare benign tumour (11, 12). The consistency of the fibrolipoma can be soft or firm depending on the amount of fibrous tissue and the treatment is usually a surgical excision (13). As described in literature, in patients affected by aesthetic dysmorphism, a simple operative procedure can be used to enlarge the volume of the penis by autologous fat transfer. At the same time, the penis can be lengthened by release of the suspension ligament below the symphysis, so defined "augmentative phalloplasty" (7-10). Probably bleeding and lymphorrhea after this treatment, together a large amount of fat implanted, could play a role in the aetiology of penis fibrolipoma such as our case. We suggest to use a compressive bandage on the suprapubic zone for 4-6 weeks and not to exceed with the amount of fat transferred during the surgery. Moreover we suggest not to perform the augmentative phalloplasty in patient with previous hydraulic penile prostheses surgery for not damaging the implant. Diagnosis of the lesion was achieved by clinical penile palpation and ultrasonography. In addition to that in the patient's preoperative diagnosis a Magnetic Resonance Imaging (MRI) should be useful and performed (14). In our patient, surgical resection of the lump was very difficult because of the near connection with penis neurovascular bundle and the adhesions to it. Most probably, the MRI could have provided us a better understanding of the involvement of these structures. Augmentative phalloplasty with autologous fat transfer and section of the suspension ligament below the symphysis is a generally safe and effective procedure. Nevertheless complications

may occur, even with a meticulous observation of the steps of the surgery. The complete removing of the mass, consisting in surgical excision with capsular dissection, should be performed but it is not always easy, and in patient with previous penile prosthesis may be useful to recovery a normal prostheses activation. MRI helps to determine the best surgical approach increasing the accuracy of diagnosis and treatment.

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