

Use of inflatable penile prostheses AMS CX with momentary squeeze in a patient with Peyronie's disease after removal of two previously implanted penile prostheses

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CASE-REPORT

A 50 year-old patient has undergone two previous prosthetic implants in another hospital.

The first implantation was performed using an infrapubic approach followed by placement of a three-component hydraulic penile prosthesis. This was done due to a Peyronie's disease with distal dorsal penile curvature of about 70° and vasculogenic arterio-venous dysfunction arisen since 2005. After six months the prosthesis has been removed due to a persistent dorsal curvature of about 70° and significant discomfort during sexual intercourse. The patient has also reported extreme difficulty in activating the prostheses, as it caused a lot of pain in the right testicle. The pain was present both in erection and in flaccid state. The prostheses was removed using an infra-pubic approach. After that, two soft prostheses Virilis II have been inserted during the same surgery. In addition to that, a ventral Yachia plication has been performed. The patient came under our observation a year after the second operation due to sexual dissatisfaction and difficulty in having a normal sexual intercourse for the presence of persistent dorsal penile recurvatum about 70° secondary to Peyronie's disease, absence of complete penile rigidity in the erectile phase, no coital tumescence of glans with a sensation of cold and curving downwards during erection.

Physical examination showed a diffused thickening of the intercavernous septum between proximal third to the distal third of the penile shaft; asymmetry of the two previously implanted soft prosthesis at the level of apex - the right prosthesis not reaching the apex of the right corpus cavernosum. As a consequence the penis was not in axis and was twisting towards the right side. Penis size was normal, however it did show augmented consistency and reduced elasticity due to fibrosis that was a result of two previous surgery. Few days after the visit a penile duplex ultrasound has been carried out, which showed severe hypoperfusion of penile arterial district, fibrotic lesions that were caused by Peyronie's disease, post-operative fibrosis with diffuse thickening of the septum from intercavernous distal third to proximal third of the penile shaft, as well as dorso-lateral curvature of about 70° with

axis rotation towards the right side. Penile microcirculation was altered. A Magnetic Resonance Imaging (MRI) was carried out with coronal image (Figure 1) and axial image (Figures 2-3) showing penile prosthesis elements positioned in asymmetry and right prosthesis not reaching the apex extremity (Figure 2). In addition to that the crural element of the right prosthesis appeared to be positioned more backwards than the contralateral one. The thickness of the cavernous body positioned beyond the apex of the prosthetic elements was about 1 cm to the right and about 2 mm to the left (Figures 2-3). The patient was also subjected to psychological counseling for a diagnosis of reactive depression that developed due to a non-satisfactory outcome of the two previous surgeries. Notwithstanding the above condition it has been decided to perform another surgery with the aim to correct the penile recurvatum and to increase penile rigidity during penetration using a three-component AMS CX hydraulic prosthesis with Momentary Squeeze.

The surgical approach included:

- sub-balanic circular incision and degloving of the penis along a sub-dartos avascular plane, longitudinal paraurethral opening bilateral of Buck's fascia bilaterally, and significantly difficult but complete isolation of the neurovascular bundle up to get a good penile straightening,
- peno-scrotal incision with corpora cavernosa exposure; lateral corporotomies bilaterally, "minimally" invasive measurement of the corpora diameter, bilateral removal of soft prosthesis, bilateral implanting of two expandable prosthesis cylinders at the level of the two corpora cavernosa; bilateral fastening with Prolene 2/0 of the two crural tips of prosthesis cylinders at the same level of corpora cavernosa in order to achieve the correct alignment of both cylinders and to prevent their misplacement (Figures 4-5), positioning of the reservoir to the front of the bladder and positioning of the pump into the scrotum; double ventral subglandular Yachia plication until getting the complete straightening of the penis; realignment of Buck's fascia, repositioning of the

penis within its skin-dartos sheath, small aspirating drainage, preputial plasty with circumcision, suture of surgical wounds, placement of 16 Ch Foley urethral catheter, placement of a semi-compressive elastic dressing, filling the prosthesis up to 70%.

RESULT

The patient had no postoperative infection or alterations of the mechanical type, with normal resumption of sexual activity after eight weeks. Twelve months after the surgery the patient was fully satisfied with his sexual life. Twelve months after surgery the penis was completely straight without penile shortening thanks to the early activation of the prosthesis starting since the third week after penile implant.

CONCLUSION

The layout of the three-component hydraulic penile prosthesis associated with a complete isolation of the neurovascular bundle, with two minimal ventral sub-glandular Yachia plications, has allowed to obtain a good rigidity and a perfect straightening of the penis; fastening of the two crural tip at the same level of albuginea of the two corpora cavernosa has enabled a perfect alignment of the cylinders along the longitudinal axis and the symmetry of both cylinders of penile prosthesis.

Figure 1.
MRI – coronal image showed penile prosthesis elements positioned in asymmetry, not reaching the right prosthesis apex extremity.

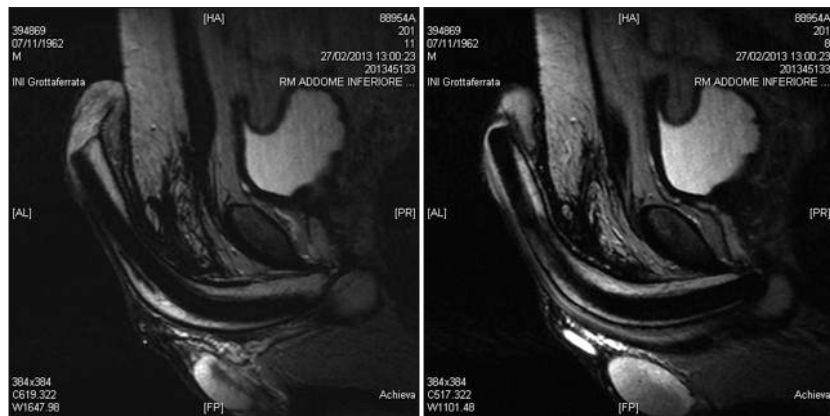
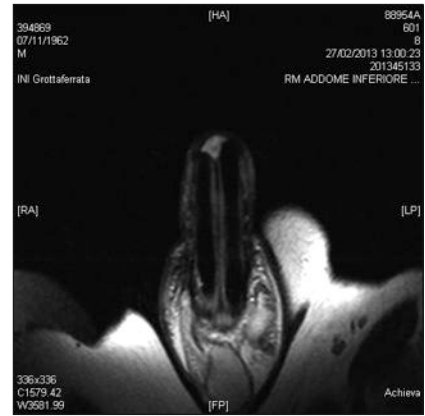


Figure 2-3.

MRI – axial image showed penile prosthesis elements positioned in asymmetry, not reaching the right prosthesis apex extremity, the crural element of the right prosthesis appeared to be positioned more backwards than the contralateral one.

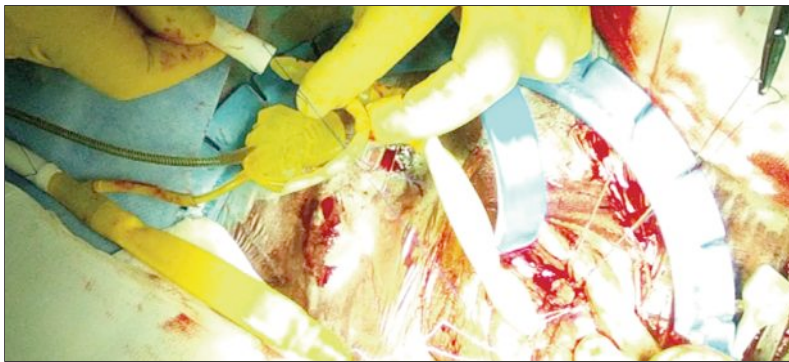


Figure 4.

Fixing of two crural tips of prosthesis cylinder with Prolene 2/0.

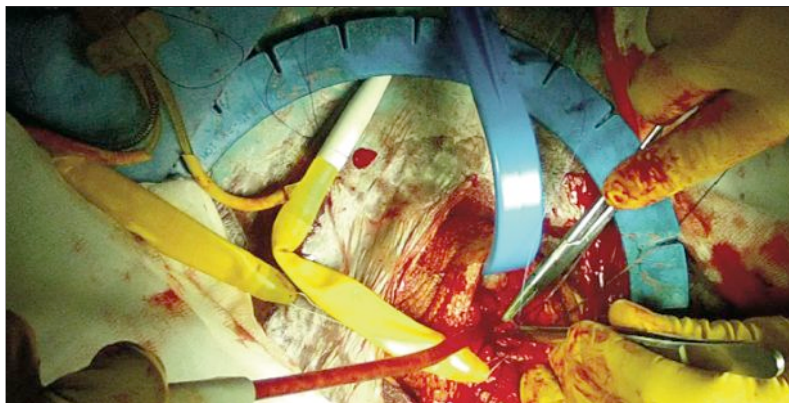


Figure 5.

Fixing with Prolene 2/0 at the same crural level.