African Urology 2026;6:105-108
https://doi.org/10.36303/AUJ.0258

AFRICAN UROLOGY
ISSN 2710-2750 EISSN 2710-2750

CASE REPORT

Surgical treatment of erectile dysfunction with malleable penile prosthesis: first experience in Benin

DMI Yevi,[1] A Mangoue,[1] AK Douro,[1] F Hodonou,[1] J Sossa,[1] MM Agounkpé,[2] G Natchagandé,[2] K Ouaké,[2] J Avakoudjo[1]

[1] *Urology-Andrology University Clinic, Centre National Hospitalier Universitaire Hubert Koutoukou Maga, Benin*
[2] *Departmental University Hospital Centre of Ouémé Plateau, Benin*

Corresponding author, email: marianebemou@gmail.com

Introduction: Erectile dysfunction (ED) is a common condition affecting patients' quality of life. When first- and second-line treatments fail, penile prosthesis implantation is an effective option. This study reports the first penile prosthesis implantation performed in Benin, including complete preoperative evaluation and postoperative follow-up.

Observation: A 58-year-old patient with severe ED for two years, resistant to medical therapy, underwent implantation of a malleable penile prosthesis (ZSI 100D9 Zephyr Surgical Implants, Geneva, Switzerland) under general anaesthesia via a penoscrotal approach. The patient had several comorbidities, including hypertension, a history of pulmonary embolism (treated with Préviscan in 2021), chronic venous insufficiency, and haemorrhoidal disease. The patient did not smoke or consume alcohol. Hormonal evaluation, including testosterone, was normal, confirming vasculogenic ED. The postoperative course included penile oedema, phlyctaenae formation, minor secondary suppuration, and fibrous ring formation, all managed with 14% bicarbonate dressings and topical Baneocin. Corticosteroid therapy was initiated on day 10 after confirming the absence of infection, with strict glycaemic control. At five months postoperatively, the patient reported total satisfaction after the first sexual intercourse despite mild penile pain.

Conclusion: This first penile prosthesis implantation in Benin represents a significant advancement in ED management, demonstrating feasibility in resource-limited settings, and highlighting the importance of thorough preoperative assessment and patient education. It provides educational value for urologists and encourages patient awareness of this therapeutic alternative.

Keywords: erectile dysfunction, penile prosthesis, surgery, first experience, Benin

Introduction

According to the 2004 International Consultation on Sexual Medicine (ICSM), ED is defined as the persistent or recurrent inability of a man to achieve or maintain an erection sufficient for satisfactory sexual activity.[1] ED management has evolved significantly with the introduction of phosphodiesterase type 5 inhibitors and intracavernosal injections. However, these treatments are not always effective. Overall improvements in management have renewed interest in other approaches, particularly penile implants.[2]

The European Association of Urology (EAU) guidelines position penile prosthesis implantation as a third-line option for ED when medical treatments are ineffective, unsatisfactory, or contraindicated.[3] Until recently, ED patients were managed exclusively with first- and second-line therapies in Benin. This study aims to report the first surgical management of ED in Benin, including preoperative evaluation, surgical technique, postoperative management, and follow-up outcomes.

Case presentation

The 58-year-old patient has been hypertensive since 2009, with a history of bilateral hydrocelectomy, pulmonary embolism (treated with Préviscan in 2021), chronic venous insufficiency of the lower limbs, and haemorrhoidal disease. The patient presented with severe ED lasting approximately two years without an ejaculatory disorder. Despite prior urological follow-up and medical treatment, no improvement was noted. His International Index of Erectile Function (IIEF) score was 8, indicating severe ED.

A physical examination revealed good general condition, genitalia without abnormalities, and bilateral pitting oedema of the lower limbs. Haemoglobin was 8.6 g/dl (mild anaemia), corrected preoperatively with a transfusion. Preoperative cystoscopy showed a healthy urethral wall, moderately obstructive prostatic lobes, and a normal bladder.

The hormonal profile, including testosterone and other parameters, was within normal limits. A malleable penile prosthesis (ZSI 100D9, Zephyr Surgical Implants) was implanted using the penoscrotal approach under general anaesthesia (Figure 1).

Figure 1: The malleable prosthesis

Figure 2: Day 1 postoperatively

Figure 3: Day 11 postoperatively

Figure 4: One month postoperatively

Postoperative course

On day 1, the penile oedema was treated with 14% bicarbonate dressings and a suspensory bandage (Figure 2). Phlyctaenae formation on the penis and scrotum was treated with Baneocin ointment. The scrotal oedema was reduced on day 4; however, distal swelling persisted with a fibrous ring at the base of the penis. After confirming the absence of infection, corticosteroid therapy was initiated on day 10. Glycaemic control was strictly maintained, leading to notable improvement by day 11 (Figure 3).

After three weeks, the wound had minor suppuration after stitch removal, which resolved with local care. Figure 4 shows the healing progression one month postoperatively. At six weeks, the wound was completely healed. By five months, the patient had not yet used the prosthesis due to personal reasons. First intercourse at five and a half months resulted in total satisfaction. The patient reported ongoing, intermittent mild penile pain.

Discussion

The implantation of a malleable penile prosthesis marks a milestone in ED management in Benin. This technique is well recognised for its efficacy, simplicity, and durability, particularly in patients with failed medical therapy.[4] Our patient's comorbidities (hypertension, history of pulmonary embolism, chronic venous insufficiency) were carefully assessed and managed according to international standards before surgery. A complete aetiological workup, including hormonal evaluation, ruled out neurogenic or endocrine causes, confirming vasculogenic ED. Surgical indication was confirmed after documented failure of medical therapy and a very low IIEF score.

The choice of a malleable prosthesis was driven by its lower cost, ease of implantation, and absence of mechanical components that could fail, all critical considerations in resource-limited settings.[5] Postoperative complications were minor and managed successfully. No deep infection, extrusion, or dehiscence occurred, consistent with the literature on semi-rigid implants in well-supervised environments.[6]

Psychological aspects are fundamental, as the patient only activated the prosthesis after several months. A multidisciplinary approach, including psychological support, is essential.[4] This case illustrates the feasibility and safety of malleable penile prosthesis implantation in a resource-limited setting, providing a foundation for specialised urologist training and patient education.

Conclusion

Penile prosthesis surgery for ED is now a reality in Benin. Despite minor complications, the first intervention achieved clinical and personal satisfaction. The future of this technique depends on strengthening local capabilities, proper patient selection, and comprehensive care, including psychological support. Establishing a national registry would be valuable for documenting cases and optimising practices.

Conflict of interest

The authors declare no conflict of interest.

Funding source

No funding source to be declared.

ORCID

DMI Yevi https://orcid.org/0000-0002-2504-5403
A Mangoue https://orcid.org/0009-0004-3173-520X
AK Douro https://orcid.org/0009-0006-6398-319X
F Hodonou https://orcid.org/0000-0003-0989-0380
J Sossa https://orcid.org/0000-0002-7111-9426
MM Agounkpé https://orcid.org/0000-0003-3333-7462

G Natchagandé https://orcid.org/0000-0003-2329-5705
K Ouaké https://orcid.org/0000-0003-4338-4297
J Avakoudjo https://orcid.org/0000-0001-6987-6578

References

1. Lue TF. Erectile dysfunction. N Engl J Med. 2000;342(24):1802-13. https://doi.org/10.1056/NEJM200006153422407.
2. Jain S, Bhojwani A, Terry TR. The role of penile prosthetic surgery in the modern management of erectile dysfunction. Postgrad Med J. 2000;76(891):22-5. https://doi.org/10.1136/pmj.76.891.22.
3. Hatzimouratidis K, Eardley I, Giuliano F, et al. EAU guidelines on penile curvature. Eur Urol. 2012;62(3):543-52. https://doi.org/10.1016/j.eururo.2012.05.040.
4. Levine LA, Becher EF, Bella AJ, et al. Penile prosthesis surgery: current recommendations from the International Consultation on Sexual Medicine. J Sex Med. 2016;13(4):489-518. https://doi.org/10.1016/j.jsxm.2016.01.017.
5. Sevinc C, Ozkaptan O, Balaban M, Yucetas U, Karadeniz T. Outcome of penile prosthesis implantation: are malleable prostheses an appropriate treatment option in patients with erectile dysfunction caused by prior radical surgery? Asian J Androl. 2017;19(4):477-81. https://doi.org/10.4103/1008-682X.178846.
6. Chung E, Van CT, Wilson I, Cartmill RA. Penile prosthesis implantation for the treatment for male erectile dysfunction: clinical outcomes and lessons learnt after 955 procedures. World J Urol. 2013;31(3):591-5. https://doi.org/10.1007/s00345-012-0859-4.