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Research Article

POST SURGICAL PENOSCROTAL ELEPHANTIASIS AT KISANGANI

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A B S T R A C T

Wuchereriabancrofti filariasis and penoscrotal elephantiasis are frequent in endemic countries but a rare condition in the developed countries. We report a case of idiopathic penoscrotal elephantiasis treated at Kisangani University Hospital by a wide surgical excision of diseased tissue and penoscrotal reconstruction. The postoperative outcome was uneventful. After a follow-up of twelve months, the functional and aesthetic condition of the penis and scrotum remained excellent.
A good surgical management of a penoscrotal elephantiasis case may result in functional and aesthetic recovery of male genitals.

INTRODUCTION

Penoscrotal elephantiasis is a significant increase of bursa in volume following lymphedema with thickening of the skin and subcutaneous tissue caused by lymphatic vesselsobstruction. Common in filaria-endemic countries in *Wuchereriabancrofti*in the tropics [1, 2, 3], peno-scrotal lymphedema is a rare condition in developed countries. [4] It is characterized by its monstrous appearance and psychological harm certainty.

It may be primitive (idiopathic) [5], secondary to the pelvic and/or inguinal lymph nodesdestruction, and compression by certain genital or lymphoma cancers [6], surgery [7] or pelvic radiotherapy [8]. Management is difficult and the results are random [7].

Thus, of this work aimsshowing a case that has been treated successfullyand whose functional and aesthetic results weregood.

Observation

From May 13 to July 1, 2015, a 54-year-old patient with peno-scrotal elephantiasis was hospitalized in the Department of Surgery of the University Clinics of Kisangani.

In the history of the disease, the beginning of the affection dated to 14 years by a scrotal swelling, progressively increasing volume, interesting the two bourses, non-reducible and not impulsive on effort or cough.

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He received three surgical procedures for the treatment of bilateral inguino-scrotal hernia in 2001, 2007 and 2009, with the notion of a long stay in Isangi, a region of endemic filariasis in the Democratic Republic of the Congo (DRC).

As complement of history, he presented a sexual asthenia with abolition of the libido and a repetitive intermittent dysuria.

On physical examination, the patient presented a fever at 37.9 ° C and an apparent slimming.

The scrotum pockets are enlarged, ovoid in the shape, reaching the knees in an upright position, measuring about 35 cm in diameter, ulcerated at the left outer edge. The penis is invaginated as a glove in the scrotum (Figure 1).

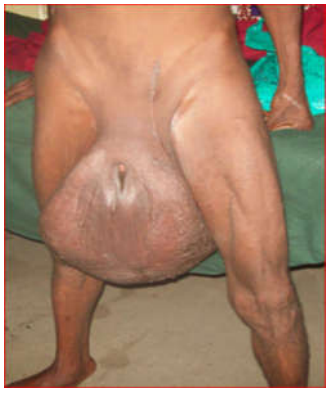


Figure 1 Clinical aspect

The skin was thick, wrinkled, dry, keratosic and painless. The scrotal mass was irreducible and the testicles were not palpable. We noted dullnessatpercussion with a silence on

auscultation. The ganglionic areas were free and negative transillumination. At the rectal examination, the prostate was normal. The vascular and nervous examinations of the two lower limbs werewithout peculiarities.

We have retained the diagnosis of penoscrotal elephantiasis. The lab testsresults were as follows: Thin dropand Thick drop negative to microfilariae, White Blood Cells: 3000/mm^3; VS: 135mm/1h; LF neutrophilic at79%; Urea: 47.30 mg/dl; Creatinine: 1.79 mg / dl; SGPT: 44.00U/l; SGOT: 86.30U/l; Blood group: ORh+. Prostate specific antigen was at 3 ng/ml In the urine: the albumin was positive, with traces of sugar; in the sediment we observed numerous shells, some epithelial cells and leukocytes per microscopic fields; the Gramstaining showed many Gram + shells arranged in clusters and some leukocytes. Inguino-scrotal ultrasound and histopathology were not performed.

Surgical treatment involved the excision of all lymphedema tissues weighing 7 kg, preservation of the posterior-lateral healthy skin of the scrotum, and the release of the two spermatic cords and the well-defined and viable testicles. We finished with the reconstruction of a neo-scrotum after reintegration of the testicles, the laying of a perineal drain and then a sterile wound dressing (Figure 2).

It most often affects the scrotum or the penis and -scrotal units, the isolated penile involvement being rare, but the epididymo-testicular content is practically always respected [11, 12] as in our case.

It is classical to distinguish primary and secondary penile-scrotal lymphedema.

Primary or idiopathic lymphedema is due to a congenital abnormality of the lymphatic vessels. It may be found both at an early and late age [1, 5].

Secondary lymphedema is often a consequence of a parasitic disease, lymphatic filariasis present in tropical and subtropical countries [2, 13]. It may also follow urethral stenosis, radiotherapy, pelvic carcinological surgery or surgery of urogenital bilharziasis [6, 10, 14]. In our case, there were 3 interventions in the inguinal region that could alter the lymphatic vessels. Also we thought of elephantiasis secondary to a post-surgical lymphatic obstruction.

The diagnosis of elephantiasis is clinical before a large volume of the purse with a doubled or tripled wall thickness. The scrotal skin becomes thick, carded and loses its elasticity [14, 15, 16].

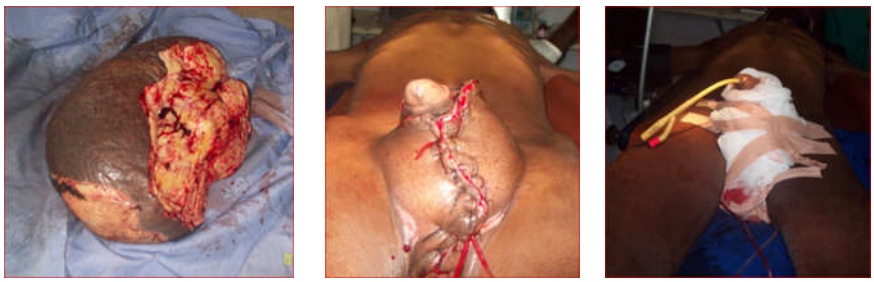


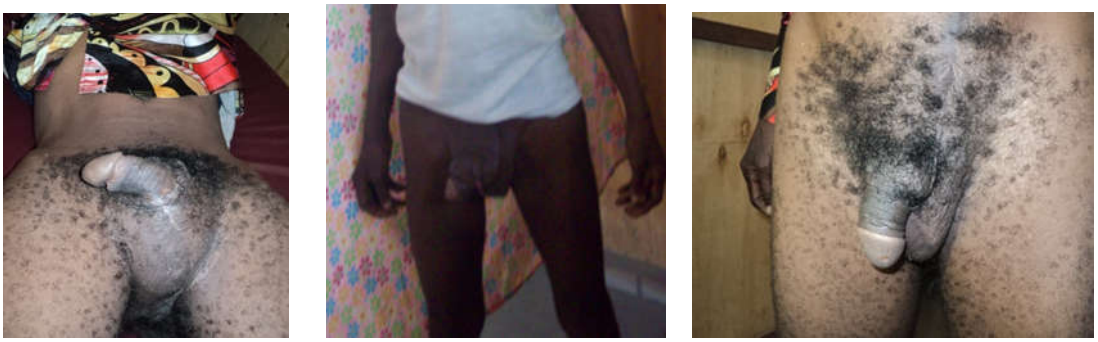
Figure 2 Surgical act

Postoperatively, he underwent treatment with Ceftriaxone 2x1gr/day//10 days; Metronidazole infusion 3x500mg/day//10 days; Diclofenac 2x75mg/day//5 days.

The daily dressing of the Dakin® solution and the hydrogen peroxide was carried out for the first 15 days and then every second day for the rest of the time until the healing process which took 35 days. Pseudo-scrotal morpho-functional recovery was acceptable (Figure 3).

The lymphatic oedema can extend to the penis and bury it in the finger of a glove preventing any sexual intercourse and occasionally causing micturition disorders in the form of dysuria as the case of our patient [17,18].

The treatment is surgical, based on a wide excision of the pathological scrotal wall thus preventing recurrence.The surgical excision is followed by a scrotal plastic surgery of which several techniques have been described.



8 months post surgical **12 months post surgical**

Figure 3 Post-surgical results

DISCUSSION

Scrotal elephantiasis or scrotal lymphedema is sometimes monstrous increase in the size of the bursa, secondary to an abnormal collection of protein-rich fluid in the subcutaneous tissue [9, 10].

- Two scrotal flaps, posterior-lateral or cranial-dorsal, preserved, allow the reconstruction of a new scrotum. It is a technique practiced by several surgeons, with a good morphological and functional result [1,17,19]
- Inguinal or supra-pubic pedicled skin shavings [2,12]

- Two fascio-cutaneous flaps of the thigh [10, 11].
- The use of thin free skin graft, abandoned for disorders of spermatogenesis by increased local testicular heat induced [18].

Our therapeutic regimen differs little from that described in the medical literature above. The patient benefited from a large excision of diseased tissue, a skin reconstruction from neighbouring skin remains without a skin graft.

The evolution is simple, with normal scarring, after dressings based on mild antiseptics and sensitive antibiotics as in our case [18, 20].

CONCLUSION

Scrotalelephantiasis is a rare disease, but its clinical diagnosis must remain present in all minds.

The case of our patient appears original because of the chronicity of installation of the lesion, 14 years; Diagnostic errors to be avoided (inguino-scrotal hernia) and the weight of the resected tissues, 7 kilograms.

The treatment is surgical with a wide excision of pathological tissues, followed by a scrotal reconstitution from the healthy flaps, which has given us both cosmetic and functional satisfaction.

Contribution of Authors

All the authors contributed to the conduct of this work. All authors also declare that they have read and approved the final version of the manuscript.

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