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TROPICAL SCROTOPLASTY

SNEHANSU PAN, MS, DNB
Associate Professor, General Surgery,
Burdwan Medical College, Burdwan-4, West Bengal, INDIA

ABSTRACT:- There are some surgical conditions where total scrotal skin is lost.One is Fournier's gangrene and the other is machinery injury particularly agriculture machine in our country. So long there is only one option to solve this problem- to place the testes into the thigh. But this is not physiological as the subcutaneous tissue of thigh does not provide a low temperature area like scrotum.This is mandatory for spermatogenesis. I have developed a technique of flap mobilization by which a large amount of fascio-cutaneous flap can be made available to reconstruct a new scrotum. The final result is excellent. Patient satisfaction is very good.

Keywords:- Fournier's gangrene, Scrotoplasty, Fascio-cutaneous flap, Neoscrotum.

I. Introduction:

Tropical scrotoplasty is the term I have given to a procedure which I have developed during last four years of my career. Scrotoplasty means reconstruction of scrotum. This is done in cases of loss of scrotum.This problem I found occasionally in patients suffering from Fournier's gangrene. Another cause is accidental avulsion of scrotum by agriculture machine. Both these conditions are found in our country, which is a tropical one. Because of hot and humid weather and subnormal personal hygiene, Fournier's gangrene is relatively common in our country. The prevalence of diabetes is also high . This is a risk factor for Fournier's gangrene. Some of them are so extensive that there is loss of total scrotum. Machinary injury also produce same condition. The final result is two bare testes with spermatic cord attached to them.

How this problem can be solved? There are three options:-

1. Placing the testes in the subcutaneous space of thigh. This is not physiological and also not patient friendly.
2. Skin grafting. Result is poor as also success rate.
3. Orchidectomy. As suggested by some of my friends. But this not acceptable both scientifically and legally.

Anatomically there is lots of loose skin and fascia in the groin, inguinal and perineal regions. Moreover there are some normal anatomical folds also in those regions. These two factors made it possible to mobilize quite a large amount of fascio-cutaneous flaps towards testes to construct a neo scrotum.

II. Aims and Objectives:

Aims and objectives of this study is to explore the possibility of constructing a new scrotum by fascio-cutaneous flap mobilization from adjacent areas.

III. Material and Methods:

Five patients were selected who had total loss of scrotum due to Fournier's gangrene during last four years. One of these patients (69 years) presented with severe septicaemia and acute renal failure. After a prolonged therapy, he improved and selected for operation. (Fig 1)

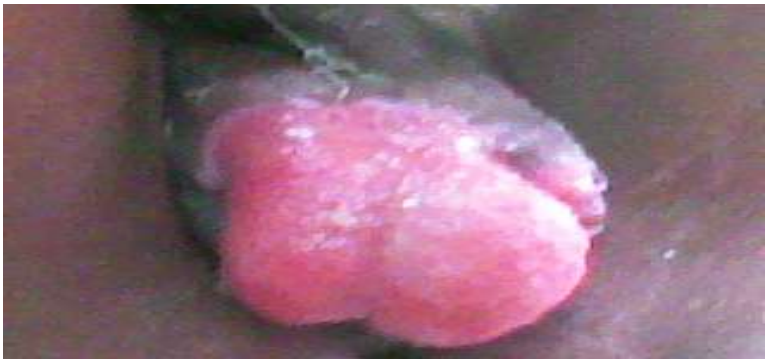

Fig 1. Preoperative photograph: the problem.

The operative method: The reconstructive procedure was attempted only when the wound was reasonably clean. After proper preoperative preparation the patients were taken to the operation theater. Under anesthesia, the first step was to do a debridement. All the doubtful tissues were removed till a freshly bleeding margin obtained.

Flap mobilization: The skin along with superficial fascia was mobilized. Upwards up to the upper border of pubis, backwards up to perineal body, laterally up to femoral sheath. The mobilization can be done very easily. And will provide a large amount of well vascularized skin flap. With this much of skin a new scrotum was constructed very nicely. [1] The flaps were closed with 2/0 proline suture. Little flap rotation required at some places.(Fig 2) No drainage was required as the plain of mobilization was very much avuscular. Regular wound inspection and dressing change done as this area is very much susceptible to infection. The stitches were removed after two weeks time.

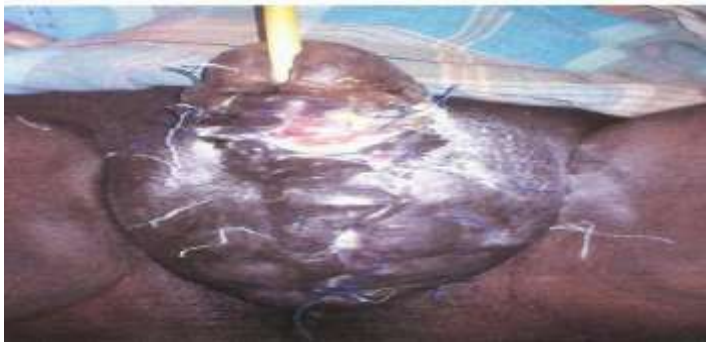

Fig 2. Postoperative Photograph

The results:

The results were excellent. The wound healed nicely by first intention. There was no flap necrosis. The appearance of the neoscrotum was excellent. Patient satisfaction was good.(Fig. 3)

Fig 3: The result, almost one year after surgery

IV. Discussion and Conclusion:

Fournier's gangrene:[2,3,4,5] Jean Alfred Fournier (12 may 1832 – 25 december 1914) was a French dermatologist who specialized in venereal diseae. He was born in Paris. He was the first physician to published a series of cases of idiopathic scrotal gangrene.Now the disease bears his name. It is an infective gangrene produced by synergistic infection with microaerophilic streptococci, staphylocci and gram negative, sometime anaerobic bacilli. Diabetes is a predisposing condition.Infection results in arteritis and its occlution. So it is a vascular disaster of infective origin.

Compared with the traditional method, Tropical scrotoplasty is a very good and patient friendly method for management of total loss of scrotum. This is a tropical problem. And management procedure is described by a tropical surgeon. So, why not call it Tropical Scrotoplasty?

References

[1]. Flaps, IAN A. McGREGOR in FUNDAMENTAL TECHNIQUES OF PLASTIC SURGERY Eighth Edition (1989) P: 93-95.
[2]. The testis and scrotum : in Bailey & Love's Short Practice of surgery :23 rd edition (2000) p1280-1281
[3]. Fournier's Gangrene : Vernon M Pais, jr, MD , chief editor. Medscape, updated. Nov 16, 2015
[4]. Fournier's gangrene : Wikipedia the free encyclopedia: https://en.m.wikipedia.org>wiki>fourm.
[5]. Jean Alfred Fournier: Wikipedia.