Fournier's gangrene – Not a stigma for surgery with newer surgical reconstruction of scrotum

Suryapratap Singh Tomar

Received: 14 December 2009 / Accepted: 3 February 2010
© Association of Surgeons of India 2010

Abstract A 34-year-old man with complaining of high fever and painful swelling and edema of the scrotum was admitted to our hospital. As per clinical and radiological findings, he diagnosed as a case of Fournier's gangrene. We started treatment with antibiotics, and extensive soft tissue debridement of scrotum done. After the debridement, infection was controlled by wound irrigation, higher antibiotic, regular dressing. Patient improved drastically and mature granulation covered both the testes completely within 14 days. After all this treatment, the neoscrotum was made successfully by mobilizing bilateral fascio-cutaneous flaps from adjacent supero-medial sites of the thighs. The patient was discharged on 26th day and patient is doing well in follow up.

Keywords Fournier's gangrene · Radical debridement · Neoscrotum · Necrotizing fasciitis cancer

Introduction

Fournier's gangrene is an uncommon infection, which is classically defined as rapidly spreading infection of the scrotum that also involves the perineum and the abdominal wall, with occasional cranial extension to the abdominal wall [1]. It is characterized by a synergistic, necrotizing fasciitis leading to the thrombotic occlusion of small subcutaneous vessels and the development of gangrene.

With the bacterial infections other risk factors like; immunocompromised patients, malignant disease, obesity, diabetes mellitus, peripheral vascular disease, local trauma, urethral stricture and perianal disease are uncommon [2].

Early diagnosis, supportive measures and the use of broad-spectrum antibiotics with prompt and aggressive surgical debridement remain the cornerstone of management [3, 4]. In spite of these, surgical reconstruction of scrotum and advancements in management, mortality is still high and averages 20–30%.

Case report

A 34-year-old male was admitted in OPD with fever and necrotizing fasciitis. The scrotum was cellulitic and gangrenous. The inguinal area and perineum were swollen and cellulites bilaterally. No medical or surgical or family history and no knowledge of any drugs allergies were available. The features of septicemia like shock (BP 80/60 mmHg), raised WBC, deranged kidney function were present. USG and Doppler scrotum showed intact testes with good blood supply. The scrotal area was cellulitic and gangrenous. A painful necrotic area was there. With the suspicion of Fournier's gangrene, the patient resuscitated and treated with broad spectrum antibiotic with extensive

S. S. Tomar
Department of Surgery,
Datta Meghe Institute of Medical Sciences University,
Wardha, Maharashtra, India

S. S. Tomar (✉)
E-mail: dr.suryapratap_singh_tomar@yahoo.com

debridement of scrotum (Fig. 1) was done. Blood culture was sent. With sincerely postoperative care, regular dressing and supportive treatment, patient improved drastically and mature granulation covered both the testes completely within 14th day (Fig. 2). The remaining scrotal skin was too short, secondary closure of the defect was not possible. We planned reconstruction of the scrotum by saving both testes. The neoscrotum was made successfully by mobilizing bilateral fascio-cutaneous flaps from adjacent supero-medial sites of the thighs with negative suction drain (Fig. 3). Drain out done on 3rd postoperative day and suture removal done on 12th postoperative day. The patient is doing well in follow up with excellent results (Fig. 4).

Fig. 1 Post debridement

Fig. 2 After granulation

Fig. 3 Flap reconstruction

Fig. 4 In follow up

Discussion and conclusion

The Fournier's gangrene is a rare urological disease but a fatal condition with rate of mortality near about 50%,

which includes necrotizing fasciitis of the male genital parts that needs early diagnosis and aggressive treatment with the use of wide spectrum antibiotics [5] and surgical debridement [6].

There are so many risk factors like DM, chronic alcoholism and malignancy. It is rapidly progressive disease (2 to 8 days), characterized by fever, malaise, gangrene of the genitals and raised WBC [6, 7, 8].

The most accepted management for this condition includes therapy with broad-spectrum parenteral antibiotics and early and aggressive surgical debridement of the necrotic areas with reconstruction of scrotum on right time [7, 8].

Early recognition and diagnosis, followed by emergency surgery, are the keys to treating these cases and to the prevention of systemic sepsis, potential organ failure and death [9, 10].

References

1. Patankar S, Lalwani S (2004) Fournier's gangrene. *J Indian Paediatr* 41:511
2. Kumar P, Clarke M (2002) *Clinical Medicine*. 5th ed. Edinburgh: WB Saunders 66–67
3. McLatchie G, Leaper D (2003) *Oxford Handbook of Clinical Surgery* Oxford UK 53–890
4. Pawlowski W, Wronski M, Krasnodebski I (2004) Fournier's gangrene. *Po Merkuris Lk* 17:85–87
5. Yenyol C, Suelozogen T, Arslan M, Ayder R (2004) Fournier's gangrene: Experience with 25 patients and the use of Fournier's gangrene severity index score. *Urology* 64(2):218–222
6. Muqim R (2003) Necrotising fasciitis: management and outcome. *J Coll Physicians Surg Pak* 13(12):711–714
7. Henry M, Thompson J (2002) *Clinical Surgery* Edinburgh WB Saunders 113,126
8. Cameron J (2004) *Current Surgical Therapy* Philadelphia. Elsevier Mosby 1079–1085
9. Upport R, Levy H, Patel P (2003) Case 54: Fournier's Gangrene *Radiology* 226:115–117
10. Black P, Friedrich J, Engrav L, Wessells H (2004) Meshed unexpanded split-thickness skin grafting for reconstruction of penile skin loss. *J Urol* 172(3):976–979