Case Report

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Female Fournier's Gangrene: A Rare Entity

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Abstract

Fournier's gangrene (FG) is a rapidly progressive necrotizing fascitis of the perineal and genitourinary region [1]. Most patients have underlying medical problems which cause a variable degree of immunosuppression [2]. Diabetes mellitus, alcohol abuse, renal insufficiency, and steroid use are the medical problems associated with the entity. It has been postulated that the pathogenesis of Fournier's Gangrene involves synergistic polymicrobial infection [3]. Fournier's gangrene is relatively uncommon condition, especially in female patients. Fournier's gangrene in women may arise from vulvar orBartholin's gland abscesses or may result from hysterectomy orepisiotomy wound. Here we report a case of Fournier's gangrene in a female patient with no known comorbidities.

Keywords: Fournier's Gangrene in Female Patient; Synergistic; Polymicrobial; Necrotizing Fascitis of Perineal Region; Serial Debridement and Maintenance of Nutrition.

Background

Fournier's gangrene was first described by Baurienne in 1764 and is named after a French venereologist, Jean Alfred Fournier, following five cases he presented in clinical lectures in 1883 [4]. Most series of FG have reported a 10:1 to 42:1 male-tofemale ratio [5]. Diagnosis is based on clinical findings. Swelling, tenderness, and black dermal necrosis are typical cutaneous manifestations. Crepitus represents the presence of gas-forming bacteria. Once an infection is established, it progresses and extends rapidly through fascial planes to the buttock, abdominal wall, back, pelvis, and retroperitoneum. Radiological evaluation, including CT and MRI, provides early detection in clinically indolent cases [6]. Recently reported mortality rates are still high, ranging from 14% to 45% [7]. Aggressive management, including surgical debridement, parenteral antibiotics, and treatment of underlying conditions, can improve survival [8].

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Case Report

A 53 yr lady was admitted in the Department of General Surgery with chief complaints of foul smelling perineal swelling and discolouration for 4 days (Figure 1). There is a history of a small infected nodule at right side of the perineum 7 days back for which some medication had been applied and taken but the nature of the medications were not known. Patient was having fever but no history of burning sensation during micturition and trauma to the perineum. There is no history of diabetes mellitus, tuberculosis and hypertension. Also there is no history suggestive of any kind of immunosuppression but possibility of intake of some steroidal medications during the course could not be ruled out.

On inspection a widespread gangrene was seen involving right side of the perineal region including vulva was seen (Figure 1). On palpation, crepitations were there and on pressing a foul smelling discharge came out from various parts of the gangrene.

On laboratory examination, her haemoglobin was 9.8g/dl, TLC was 15600/cm^2 with neutrophilia, ESR

110 mm in 1st hr. Rest of the blood parameters were normal including blood sugar and a negative serology report. No imaging was done except a chest x-ray PA view which was normal. On the basis of clinical findings the patient was provisionally diagnosed as Fournier's gangrene and prepared for emergency debridement.

On the very day of admission emergency aggressive debridement was done under spinal anaesthesia with Foley's catheter in situ (Figure 2). The patient was put on broad spectrum antibiotics including metronidazole. On postoperative day three a repeat debridement was also done under spinal anaesthesia (Figure 3). On repeat blood reports, total count gradually decreased and so also the episodes of fever. During the hospital admission repeated debridement was done and the wound was dressed with H_2O_2 solution, Vaseline impregnated gauze and anionic silver ointment. High protein diet was instituted. Gradually the granulation tissue arose from the wound bed and the healing margins were also visible. Foley's catheter was removed after 5 days and the patient was discharged after 10 days of admission with advice of regular dressing, hygiene maintenance, protein rich diet and weekly follow up at surgical outpatient department.

On weekly follow up, the wound significantly contracted which almost healed in 3 months period without skin grafting (Figure 4, 5). Antibiotics were no

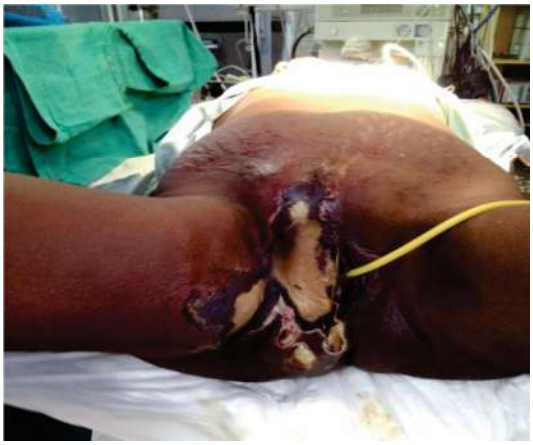

Fig. 1: at presentation

Fig. 2: Immediate post opetative

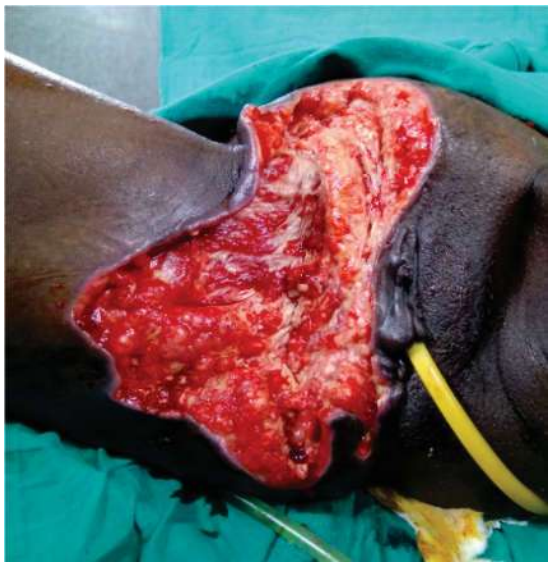

Fig. 3: Post operative day 3

Fig. 4: At 40 days

Fig. 5: at 3 months

longer prescribed after the discharge of the patient but knowledge about proper nutrition and dressing were imposed each time during the outpatient visit.

Discussion

Fournier's gangrene is now defined as synergistic, polymicrobial, necrotizing fascitis of the perianal and perineal region occurring in both genders. It is a serious surgical emergency and has ahigh mortality rate. Although Fournier's gangrene is mostly attributed to male gender, it should also be considered in female patients, especially those who have comorbidities and present with infection in the perineal area. Early and repeated debridement and regular dressing thereafter, broad spectrum antibiotics and nutrition management are the mainstay of treatment. In this patient though the initial wound was very large and it was imminent that plastic surgery will be needed but the wound completely healed without any plastic surgery intervention. So knowledge about appropriate dressing and also the nutrition are very important in managing Fournier's gangrene.

Conflict of Interest

Dr. Saurav Karmakar, Dr. Swapnil Sen and Dr. Sandeep Kumar declare that they have no conflict of interest.

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