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FOURNIER'S GANGRENE IN A FEMALE – A CASE REPORT

Forensic Medicine

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ABSTRACT

According to the hospital records and inquest report, deceased is a 45 years old female, a known case of uncontrolled diabetes mellitus and she complained of pain in the perineal region and was admitted to Osmania general hospital and while undergoing treatment she died. The deceased body was brought to Mortuary, Osmania General Hospital at 02:30 PM on 13/05/2023 by the Investigation Officer and requested for postmortem examination under section 174 Criminal Procedure Code. The postmortem findings were an infected ulcer present on right and left buttocks of which the right buttock ulcer was extending up to the perinium and thigh, she was treated for the same and diagnosed to have Fournier's gangrene with post mortem examination, interpretation of the findings and hospital records cause of death was given as "FOURNIER'S GANGRENE WITH POST SURGICAL DEBRIDEMENT STATUS"

KEYWORDS

Infected ulcer, Perineal extension, Fournier's gangrene, Uncontrolled diabetes mellitus

1. INTRODUCTION:

a) Fournier's gangrene (FG) is an acute, rapidly progressive, and potentially fatal, infective necrotizing fasciitis affecting the external genitalia, perineal or perianal regions, which commonly affects men, but can also rarely occur in women and children [(1)].
b) Fournier gangrene is often associated with general signs of sepsis, rapid tissue destruction, and a high fatality rate of 40% [(2)].
c) The spread of inflammation and infection leads to thrombosis of blood vessels, which in turn causes ischemia and tissue necrosis of the adjacent soft tissue and fascia. The infectious and inflammatory process spreads quickly along the Dartos, Colle's, and Scarpa's fascia's, allowing for the early involvement of the abdominal wall [(3)].
d) Patients with multiple comorbidities tend to have worse outcomes[(4)].

Known risk factors for Fournier gangrene include:
Atherosclerosis
Chemotherapy
Chronic alcohol abuse (25% to 50% of cases)
Chronic steroid use

Colorectal malignancy
Diabetes (20% to 70% of cases) [(5)]
Drug abuse (especially if injected directly into inguinal veins or the penis)

HIV infection [(5)]
Leukaemia
Liver failure, cirrhosis
Male gender (90% of cases)
Malnutrition
Neurogenic bladder
Obesity

Perianal abscess
Peripheral vascular disease
Prostate cancer
Recent trauma or surgery

2. Case:

A 45-year-old female[(fig1)], known case of uncontrolled diabetes mellitus, complained of pain in the perineal region on 06/05/2023 and was admitted to Osmania general hospital and was diagnosed to have Fournier's gangrene and was treated with medical and also surgical intervention. while undergoing treatment she died.

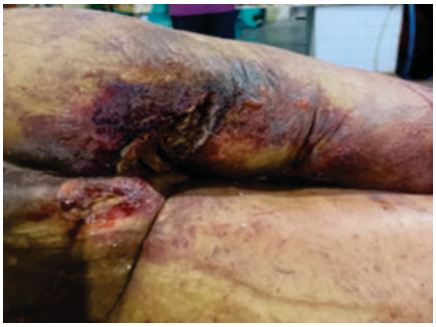
The deceased body was brought to Mortuary, Osmania General Hospital at 02:30 PM on 13/05/2023 by the Investigation Officer and requested for postmortem examination under section 174 Criminal Procedure Code.

[Fig1] Deceased 45-year-old female

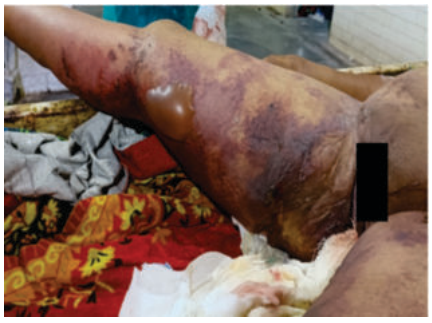
4. Post Mortem Examination:

A 45-years-old female of height 152cms, with moderately built body. Conjunctivae were congested. Body was preserved in cold storage. Post-mortem Lividity present over back of the body and back of both lower limbs. Rigor Mortis present all through the body.

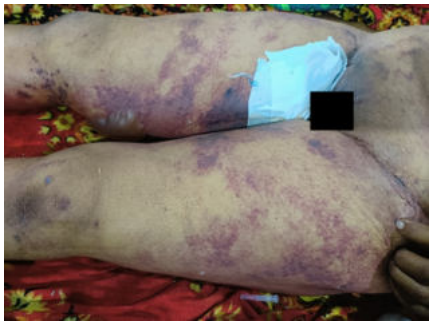
On examination, an infected ulcer of size 13cm x 7cm x 10cm deep is present over the right buttock[(fig2)], horizontally placed extending from middle of lower 1/3rd of right buttock to perineal region medially and inner aspect of right thigh with surrounding blackish discolouration of skin, swelling and blister filled with clear fluid with erythematous base is present.[(fig3),(fig4)] Ulcer is infected with greenish, yellow pus and areas of pale granulation tissue are present with partly necrotized soft tissue. An ulcer of size 10cm x 8cm is present on medial aspect of left buttock [(fig2)].



[Fig2]



[Fig3]



[Fig4]

5. DISCUSSION:

The most common sites of conspicuous gangrene in females are the labia and perineum [6]. Diabetes mellitus was seen to be a significant risk factor in 44% of females, along with obesity, seen in 21% of females. *E. coli* infections were the most prevalent, which is in line with prevailing literature and further substantiates the claim of a urogenital infection as the inciting cause [7]. The difference in surgical team management could lead to different management styles of the same condition based on gender, leading to different outcomes. Establishing general care pathways for these patients could eliminate these differences, vacuum dressing alleviates the need for multiple debridement's, which lessens hospital stay and improves outcomes [8]

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