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ORIGINAL ARTICLE

Managemnet of Fournier's Gangrene at Department of Urology Chandka Medical College Hospital

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ABSTRACT

Aims and object: To assess the aetiology and management of Fournier's gangrene.
Methodology: We examined 30 paients retrospectivdely, during the period from 2015 to 2020, the patients from the Urology department of CMC Hospital at SMBB Medical University Larkana. All the related data were taken as well as demographic details, history and risk factor from the patients regarding illness. Routine investigation carried out including Blood CP ESR, Urine Dr, Blood sugar, Renal profile and pus culture sensitivity. 20 patients under gone for surgical debridement, 5 patients require skin grafting and 4 patients requires testes burrial after recovery under aseptic measures.
Result: 30 male patients with mean age 20±10.5 year. Majority (80%) of patient presenting with necrotising infection on scrotum,perineum and hypogatric area. Basic laboratory investigations including Blood CBC showed mean WBC 15000/cmm3, mean Hb was 8.5 gms, Urine analysis showed pyuria and haematuria, pus culture and sensitivity positive in 90% cases and most prevalent organism was E.Coli, Mean Blood urea was 35mg and serum creatinine was 1.9mg. Commonest causes of fourneir gangreen was trauma, UTI, urethral stricture, indewelling catheter and perianal abcess and D.M was commonest comorbidity). All patients treated by surgical debridement while 5 patients requires skin grafting and 4 patients requires testes burrial after recovery under aseptic measures with with triple regimen antibiotics.
Conclusion: Surgical debridment of necrotic tissues and triple regimen antibiotic are the main stay for primary management of Fournier's gangrene (FG) to decrease the morbidity and mortality
keywords: Fournier's Gangrene, surgical debriment, and triple regimen antibiotics.

INTRODUCTION

French Venereologist Jean Alfred Fournier initially recognised Fournier's gangrene (FG) in 1883. Fournier gangrene is characterised as polymicrobial perineal necrotizing fasciitis, perineal/vaginal regions. Mostly men are more involved while women and children less affected.[1,2]. Anorectal or urogenital injury, as well as pelvic /perineal trauma or pelvic intercessions, are prominent aetiologies of FG, while secondary illnesses, the major of which are alcohol abuse and diabetes mellitus, are also being found. Diabetes mellitus is found in 20 percent to 70 percent of FG patients, while chronic alcoholism is found in 25 percent to 50 percent of patients.[3.4] FG usually begins with insight and progresses to a rapid onset and fulminant course, with the last mentioned being the foremost predominant.[5] Development of cellulitis around the portal of entry, depend on the source of infection, however it most commonly hppen at perineum or perianal regions. Pain, swelling and Crepitus found in majority cases due to occurrence of gas-forming organisms in the inflamed tissues. Necrotic patches form over the underlying skin as subcutaneous inflation progresses to widespread necrosis.[6,7] If patient not promptly treated, may develop rapidly sepsis along multiple organ failure, hence surgical debridement plus Triple antibiotics are critical in the management of FG.[8,9] In spite of enhanced therapy, mortality remains high, ranging between 20% and 30%.[10,11]

METHODOLOGY

Total 30 patients, admitted according to eligible criteria in the Urology Department, CMCTH at SMBB medical University Larkana, during the period from 2015 to 2020 . All the demographic data, history as well as related risk factors for the disease. Routine investigation carried out including Blood CP ESR, Urine Dr, Blood sugar, Renal profile and pus culture sensitivity. 20 patients under gone for surgical debridement, 5 patients require skin grafting and 4 patients requires testes burrial after recovery under aseptic measures.

RESULT

30 male patients with mean age 20±10.5 year. Majority (80%) of patient presenting with necrotising infection on scrotum,perineum and hypogatric area. Basic laboratory investigations including Blood CBC showed mean WBC 15000/cmm3, mean Hb was 8.5 gms, Urine analysis showed pyuria and haematuria, pus culture and sensitivity positive in 90% cases and most prevalent organism was E.Coli, Mean Blood urea was 35mg and serum creatinine was 1.9mg. Commonest causes of fourneir gangreen was trauma, UTI, urethral stricture,indewelling catheter and perianal abcess and D.M was commonest comorbidity. All patients treated by surgical debridement while 5 patients requires skin grafting and 4 patients requires testes burrial after recovery under aseptic measures with with triple regimen antibiotics


Fig: 1 shows fourneir's gangrene


Fig: 2: shows testicular exposing after fourneir's gangrene

Table 1: Management of fourneir's gangrene

Surgical debridement	70%
Skin grafting	16.6%
Testicular burying	13.3%

DISCUSSION

Hemodynamic stability, broad-spectrum antibiotics, and surgical debridement are all necessary treatments for Fournier's ganglia.[12] In our study 30 male patients with mean age 20±10.5 year presenting with necrotising infection on scrotum, perineum and hypogatric area. Basic laboratory investigations including Blood CBC showed mean WBC 15000/cmm3, mean Hb was 8.5 gms, Mean Blood urea was 35mg and serum creatinine was 1.9mg. Urine analysis showed pyuria and haematuria, pus culture and sensitivity positive in 90% cases and most prevalent organism was E.Coli, which is compareable to Saijo S, Kuramoto Y, Yoshinari M. et al study13.

Mostly, Fournier's gangrene is caused by an infection near in the area of the genitals. UTIs, urinary bladder disease and abscesses are among the causes of infection in women, whereas insect bites, burns, and circumcision are among the reasons in children.The co morbid conditions that may causes FG are DM, alcohol excess intake, genital injury, steroids, chemotherapy, obesity and chronic liver disease while in our study man causes was trauma, UTI, urethral stricture, indewelling catheter and perianal abcess and D.M was commonest comorbidity which is compareable to study.[14]

In spite of the fact that, prime component of administration is early surgical debridement. All non-viable and necrotic tissue must be removed until well-perfused viable tissue is reached. Therefore we treated all of our patients with surgical debridement, and five of them required skin grafting. 4 individuals require testes burial following recovery under aseptic conditions and treatment with a triple regimen antibiotic that covers all potential organisms experimentally which is comparable to Chernyadyev SA, et al.[15] we used a first-generation cephalosporin, an aminoglycoside, for Gram negative organisms and metronidazole for anaerobes.

Because hyperbaric oxygen is largely regarded as an excellent supplementary therapy in the treatment of FG due to Neutralization of anaerobic microbes and improved neutrophil activity are some of the advantages of hyperbaric oxygen treatment so our small number of patients require it which is compareable to Wroblewska M et al.[16]

CONCLUSION

Early surgical debridement of necrotic tissues and triple regime antibiotics are critical in the treatment of FG to limit morbidity and mortality,

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