CASE REPORT

NECROTIZING FASCIITIS COMPLICATING VULVAL ULCER – A CASE REPORT

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ABSTRACT
Necrotizing fasciitis, NF, is also known as the flesh eating disease. The incidence is rare. Infection. Mortality is a high as 40%. Very few cases have been reported in English literature and also very few cases of necrotizing fasciitis of female perineum in India have been reported. Here we report a case in India who recovered well with repeated debridement and dressing.
Key-Words: Angiothrombosis; Necrotizing Fasciitis; Perineum; Vulval Ulcer

Introduction

Necrotizing fasciities, NF, is also known as the flesh eating disease. The incidence is rare and is found in Africa because of the practice of female genital mutilation.[1] It is rapidly progressing and characterized by extensive gangrene and necrosis of subcutaneous tissues, skin and superficial fascia due to invasion by microorganisms that lead to angiothrombosis and impairment of microcirculation. The female genitelia is affected after Bartholin's abscess or vulvar abscess. Other predisposing conditions include septic abortion, hysterectomy, mini laprotomy for bilateral salpingotomy, episiotomy and caesarean section, abdominal and perineal infections.[2] Mortality is a high as 40%.[3] Very few cases have been reported in English literature and also very few cases of necrotizing fasciitis of female perineum in India have been reported.

Here we report a case in India who recovered well with repeated debridement and dressing.

Case Report

A 50 year old menopausal lady reported to the hospital in March 2013 with complaints of maggots coming out of vulvar ulcer, pain in pelvic area & fever past 10 days. The problem started as a boil in peri – anal region which increased in size within 4 – 5 days so as to involve whole of left labia. On the 5th day, the boil burst by itself, leaving to a large raw area with large amounts of yellowish, blood tinged, foul smelling sticky discharge. She also had fever with chills and pain in perineal region which gradually increased in intensity so that she was unable to even walk a few steps. There were no triggering factors. On examination, she was lean and thin, poorly built and nourished. General examination findings were normal except for mild pallor. On local examination, there were multiple ulcers in suprapubic, left & right iliac fossa, lower part of right labia and a main excoriated area involving entire left labia (figure 1). Area around the ulcer had raised temperature, was tender and crepts could be felt. Her reports were as follows Hb – 9.6 gm%; Urea – 118 mg%; TLC – 18,800 cells/cm^3; Creatinine – 1.38 mg%; DLC – Polymorphs: 90%, Lymphocytes: 10%; Blood Culture – Negative; Urine – 4-6 pus cells; fasting blood sugar – 102 gm%; HIV – Negative; HBsAg – negative. Wound swab culture – group A streptococcus sensitive to drugs prescribed. (Ceftriaxone & Metrogyl) After initial resuscitation, she was catheterized and IV broad spectrum antibiotics were started. The ulcer was cleaned with turpentine oil in the initial few days to clear the maggots. Consequently debridement and dressing were done for a period of one month. At that time, the ulcer size decreased, but she was advised skin grafting as part of further treatment. At this point of time, patient refused any further

treatment and insisted on discharge. She was lost to follow up.

Figure-1: Necrotizing Fasciitis Ulcer in Suprapubic Region, Right – Left Iliac Fossa, Left Labia

Discussion

In 1952, Wilson coined the term necrotizing fasciitis to describe a rapidly progressive inflammation and necrosis of soft tissues. Earlier it was described under the heading of hemolytic gangrene, streptococcal gangrene, gangrenous erysipelas, hospital gangrene, galloping gangrene, phagedenic ulcer, malignant ulcer, putrid ulcer.[2]

There are very few cases reported of necrotizing fasciitis of female perineum worldwide as well as in India .Khanna et al reported necrotizing fasciitis of lower limb of 118 cases (78 males and 40 females) with mean age of 45 ± 16.5 years (range 12-95 years) admitted to the Department of Surgery, Benaras Hindu University in India between 1995 and 2007.[4] A case of a 58 yr old having cervical carcinoma and pubic bone osteomyelitis and necrotising fasciitis was described by Susim Kumar and co-workers (2008).[5] J Sabu Philip described a large abscess that spanned from the umbilicus to the left thigh and vulva area in a 69 yr old diabetic female(2012).[6] Al Jehani Y. described Necrotizing fasciitis in a 28 yr old post ceasarean woman (2012).[7] Necrotizing fasciitis is a rare presentation in females and is found commonly, in Africa because of cultural practices. It progresses rapidly and has high mortality rate.[1] Mukhopadhayay M et al conducted a clinic pathologic study of necrotizing fasciitis in 50 patients for a period of a year 2007-8.[8]

Abdominal and perineal infections are caused by polymicrobial infection. The common microfloras detected are aerobic and anaerobic gram negative enteric bacilli, enterococci, staphylococci and streptococci species. Malnutrition may be a predisposing factor. 'Dishwater pus 'is term used to describe mal odourous watery thin discharge. Perineal soft tissue infections are seen up to 36% of patients.Idiopathic necrotisig fasciitis is reported in 13-31%of cases.[2]

Females are less affected and lower incidence in females was due to better drainage through vaginal secretions. On basis of microbiological examination, it is divided in two types 1 poly microbial and type 2 which is mono microbial. Imaging studies such as ultra sonography detects gas within soft tissues better than radiography. Laboratory risk indicator developed by Wong says that score of greater than 6 points, the score had appositive predictor value. It considers the c reactive protein, total white cell count hemoglobin sodium serum creatinine and glucose.[8]

Elliot Y et al state that the risk factor for mortality is advanced age, female gender, perineal infection, its extent and site among a plethora of other risk factors. Lactic acidosis and multiple organ dysfunction predispose necrotizing fasciitis patients to death.[9] Legbo stated actual incidence of the disease are 2-3 cases being seen in major centers per year.[10]

The differential diagnosis is that of a vulvar ulcer. This disease should be differentiated from furunculosis and gas gangrene. The causative organism includes group – A streptococcus (streptococcus pyogenes), staphylococcus aureus, Vibrio vulnificus, Clostridium perfringens and B fragiles. It can occur after trauma or around foreign bodies in surgical wounds or it can be idiopathic and is most likely to occur in people with compromised immunity.

The important prognostic factor is timely diagnosis and early surgical intervention[11].The treatment includes resuscitation, surgical debridement, broad spectrum antibiotics and continuous dressing. A Consultation with a hyperbaric specialist might also be required.

It is unclear why certain cases progress to underlying fascia while others don't. When both superficial and deep fascias are involved, the overlying skin is affected due to impairment in cutaneous circulation and thrombosis. Gangrene is apparent after 4-5 days from onset. Destruction of nerves makes the skin hypoanesthetic.[11]

Conclusion

Necrotizing fasciitis is associated with a fulminate clinical course. Prognosis can be improved by urgent attention, wide margin debridement of the perineum. Because of the high mortality rate any perineal wound not responding to initial debridement and antibiotic therapy should be explored until fasciitis is ruled out. The cases of necrotizing fasciitis of female perineum is rare in India a as well as world-wide and this case report is an attempt to add to the relevant literature.

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