Original Article

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Clinical Presentation of Fournier's Gangrene

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Abstract

Introduction: Fournier's Gangrene often begins insidiously, with non specific prodromal symptoms such as malaise and scrotal discomfort. This discomfort progresses into pain, and at this time, the patient may develop blackish discoloration of the skin perianally or of scrotal skin. *Methodology:* The diagnosis was made on clinical basis, supported by other relevant investigations. Post operative follow up will be done to note the complications both in hospital and after discharge for 6-12 months. *Results:* Scrotal involvement was found in 29 cases (93.0 percent),perineum in 11 cases (36.66 percent), vulval region in 1 case (3.33 percent), groin in 2 cases (6.66 percent),and abdomen in 1 case (3.33 percent). *Conclusion:* Scrotal involvement as swelling was more common.

Keywords: Fournier's Gangrene; Clinical Profile; Scrotal Swelling.

Introduction

Fournier's Gangrene is a potentially fatal infectious disease characterized by necrotizing fascitis of the perineum and abdominal wall in addition to the scrotum and penis in men and the vulva in women. To repair the scrotal and perineal defects remainsa surgical challenge. This condition must be treated aggressively [1].

Fournier's gangrene is associated with a mortality of 40-67% of all patients even with the initial life - preserving treatment such as broad-spectrum antibiotics and multifold aggressive surgical debridement; reconstruction of the body contour is of the utmost importance for the patients [2].In approximately 95% of cases of Fournier's Gangrene a source of infection can now be identified.The association between genital skin necrosis and urethral obstruction or disruption and subsequent extravasation has been well documented [3-6].

The most common source is either urethral or rectal. Infection occurring secondary to perianal abscess, fissure - in -Ano, urethral strictures with extravasation and genito urinary trauma has also been documented [6].

Debilitating underlying diseases such as chronic alcoholism, malignancies, diabetes mellitus and sexually transmitted diseases can promote infection.

The patient typically presents with illness, approximately 2- 7 days after the onset of fever, appearing toxic and irritable with gangrenous genitalia and Neutrophilic leukocytosis. Many studies down the years since 1945 have shown a mixed infection, acting synergistically to produce effective destruction of skin and subcutaneous tissues.Infection involves aerobes such as - E.coli, Proteus or Enterococci and anaerobes such as BacteroidsFragilis, anaerobic streptococci and clostridia.

Regardless of mode of spread, Fournier's gangrene is a true emergency that demands early recognition and treatment with antibiotics and aggressive surgical treatment, usually multiple debridements and positive reconstruction efforts have all been utilized.

Fournier's Gangrene often begins insidiously, with non specific prodromal symptoms such as malaise and scrotal discomfort. This discomfort progresses into pain, and at this time, the patient may develop blackish discoloration of the skin perianally or of

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scrotal skin. The patient may become apprehensive and irritable. The patient then develops fever, chills, sweats, malaise and scrotal edema, erythema, and itching which mark the progressive phase of the disease. The scrotum may take on a "glassy" appearance, which progresses to gangrene associated with chills, and vomiting [7].

Lefrock and Molavi described various physical findings caused by atypical species of facultative anaerobes such as bronzing of the skin, increased erythema and edema that progresses to bleb formation and causes a necrotic malodorous yellow-brown discharge. Once the gangrene phase begins, the patient's condition may deteriorate rapidly with development of subcutaneous infection and rapidly extending gangrene throughout to the groin and the abdominal wall. If left untreated, death will rapidly result. Surprisingly, despite these serious symptoms and signs, patients wait an average of 5 days after the onset of symptoms before seeking advice.

Methodology

After admission, patients fulfilling the inclusion & exclusion criteria will be taken in to study after obtaining written informed consent and the data to be collected regarding clinical history, examination, diagnosis, investigations, details of previous operative procedure. The diagnosis was made on clinical basis, supported by other relevant investigations**.**Post operative follow up will be done to note the complications both in hospital and after discharge for 6-12 months. It is a hospital based study of 30 cases, with Study design as a prospective study

Statistical significance was confirmed using SPSS 20 software.

Results

The most common presentations were scrotal swelling (n =9), fever (n=8), pain (n=8) and gangrene (n=5). Scrotal involvement was found in 29 cases (93.0 percent), perineum in 11 cases (36.66 percent), vulval region in 1 case (3.33 percent), groin in 2 cases (6.66 percent),and abdomen in 1 case (3.33 percent)

Wide surgical debridement of scrotal, penile, and perineal necrosis along with other involved areas was initially performed in all patients.

Table 1: Mode of clinical Presentation (n=30)

Presenting complaint	N	%
Pain	8	26.66%
Fever	8	26.66%
Scrotal swelling	9	30%
Gangrene patch	5	16.66%

Table 2: Localization of lesion (n=30)

Lesion Site	N	%
Scrotum	17	56.66%
Scrotum & perineum	10	33.33%
Vulva & perineum	1	3.33%
Srotum& groin	1	3.33%
Groin & abdomen	1	3.33%

Table 3: Over all lesion site

Lesion Site	No	%
Scrotum	29	93.33%
Perineum	11	36.66%
Vulva	1	3.33%
Groin	2	6.66%
Abdomen	1	3.33%

Discussion

Delay in the diagnosis is common and is associated with a greater number of surgical procedures, increased hospital stay. In our study, 11 patients (36.66% percent) had diabetes mellitus. A colorectal or urogenital source of infection could be found in 27 patients (89.98 percent). Two patients (6.66 percent) had no apparent cause. We had two female patient (7

percent) (patient 13 and patient 22).Patient 22 was involved in a car accident and suffered groin and abdominal trauma.

The common presenting complaint was scrotal swelling in 9 patients(30%) , overall scrotal involvement was seen in (93%) of cases. The commonest cause being urogenital disease and colorectal diseases (Urethral strictures, Periurethral abscess, Epididymoorchitis, Phimosis ,perianal abscess) constituting 90% extensive debridement was done in all cases.

Although Fournier originally reported a disease that was idiopathic in nature, many recent studies hold divergent opinions on this issue. Hollabaugh and colleagues reported definite etiologies in 11 of 26 patients in their series [8]. Conversely, a study by Spirnak and associates revealed a clear focus of origin in 95% of patients. In our series, 28 of 30 patients had colorectal, urological, trauma or local causes as the source of the infection. We could not identify any cause in 2 patients.

Conclusion

The common presenting complaint was scrotalswelling

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