

# Fournier's Gangrene

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## Abstract

A 60 years old male patient presented to our department with edema, leak and pain of perineal region. Symptoms began three days ago. Diabetes mellitus and hypertension were his history. There was no previous history of drug allergies. In the physical examination of the patient, he was conscious with an arterial blood pressure 110/70mmHg and a pulse of 100/min. Perineal examination revealed the entire perineal skin to be gangrenous and stinking necrosis (Figure-1).

## Figure 1

Figure-1: Fournier's gangrene in perineal region



Leukocyte was 31500 mm<sup>3</sup>, glucose was 201 mg/dl, blood ure nitrogen was 222 mg/dl, crea 3.09 mg/dl. Other laboratory signs of the patient were normal. It was thought to be Fournier Gangrene. The patient was hospitalized and given broad spectrum antibiotics. Under general anesthesia, wide perineal debridement was performed. Large bowel by-pass procedures were performed because rectal muscles was kept. The patient died on post operative day ten.

## DISCUSSION

Fournier gangrene is a polymicrobial, synergistic, necrotizing

infection of the perineal subcutaneous fascia and male genitalia that originates from the skin, urethra, or rectum<sup>1</sup>.

It was first described in 1764 by Baurienne and given its eponymous name after Jean-Alfred Fournier in 1883 presented a case of perineal gangrene in an otherwise healthy young man<sup>2</sup>. Three characteristics were emphasized: (1) sudden onset in a healthy young male; (2) rapid progression to gangrene; and (3) absence of a definite cause<sup>3</sup>.

Advanced age (over fifty years old), obesity, diabetes mellitus, peripheral vascular disease, local trauma, urethral stricture, malignant and perianal disease have been cited as the main predisposing factors<sup>4</sup>. This infectious process typically begins as a benign infection or simple abscess that quickly becomes virulent, especially in an immunocompromised host, and leads to end-artery thrombosis in the subcutaneous tissue that promotes widespread necrosis of previously healthy tissue<sup>1</sup>. Traumas and urinary infections are the most common reasons of male genital necrotizing soft tissue infections<sup>5</sup>. The disease can no longer be considered to be idiopathic; in most cases a urologic, colorectal or cutaneous source can be identified<sup>5</sup>. The diagnosis of Fournier gangrene can use radiography, ultrasonography and CT<sup>6</sup>. Broad spectrum antibiotics and aggressive debridement remain the hallmarks of treatment. Hyperbaric oxygen therapy and improved local wound care may decrease the extent of tissue destruction<sup>5</sup>. In spite of these advancements in management, mortality is still high and averages 15-50 percent<sup>7,8</sup>. Our patient's had diabetes mellitus. Despite all prevention, our patient died at post operative 10 day.

## CONCLUSION

Early presentation and diagnosis, and the use of broad-spectrum antibiotics and aggressive surgical debridement remain the cornerstone of management. Despite medical

advance the mortality is still high.

### **References**

1. Schneider RE. Male genital problems. In: Emergency Medicine. A Comprehensive Study Guide. 6th ed. Tintinalli JE, Kelen GD, Stapczynski JS, Eds. McGraw-Hill, NY, 2004:613-620.
2. Sögüt O, Ustundag M, Sayhan MB, Orak M. Fournier's Gangrene. The Internet journal of Emergency Medicine. 2009; Volume 5: Number 1.
3. Kavalci C, Cevik Y, Durukan P, Temizoz O. Fourniers Gangrene. Intern Emerg Med DOI 10.1007/s11739-009-0248-1
4. Vaz I. Fournier gangrene. Trop Doct.2006;36:203-204.
5. Kuo CF, Wang WS, Lee CM, Liu CP, Tseng HK. Fournier's gangrene: ten-year experience in a medical center in northern Taiwan. J Microbiol Immunol Infect.2007;40;500-506
6. Yenyol CO, Suelozogen T, Arslan M, Ayder RA. Fournier's gangrene: Experience with 25 patients and the use of Fournier's gangrene severity index score. Urology 2004; 64(2):218-22.
7. Headley AJ. Necrotizing soft tissue infections: a primary care review. Am Fam Physician 2005;68:323-8.
8. Geraci G, pisello F, Lupo F, CajozzoM, Sciume C, Modica G. Fournier's gangrene: case report and review of recent literature. 2004;75:97-106.
9. Pawlowski W, Wronski M, Krasnodebski IW. Fournier's gangrene. Pol Merkuriusz Lek 2004;17(97):85-7.
10. Levenson RB, Singh AK, Novelline RA. Fournier Gangrene: Role of Imaging. Radiographics. 2008;28;520-528.

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