

# FOURNIERS GANGERENE DUE TO FISH BONE MIGRATION

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## **ABSTRACT**

### **INTRODUCTION**

*Fournier's gangrene is described as necrotizing soft tissue infection originating from or limited to the genitals or perineum irrespective of gender.*

### **CASE REPORT**

*We report a case of 50 years over male presented to the emergency room with fever pain and discharge from perianal and scrotal region since 5 days. At debridement a foreign body was observed. This association is uncommon.*

### **CONCLUSION**

*Fournier's gangrene in a non-vegetarian person, foreign body should always be ruled out.*

**Keywords** FOURNIERS GANGRENE, NECROTIZING FASCIITIS, FISH BONE

## **INTRODUCTION**

Fournier's gangrene is a disease which requires immediate surgical intervention(1). It was first described by Jean Alfred Fournier (1832–1914), a dermatologist, where he described this condition in 5 young male patients, who had presented with a rapid fulminating infection of the superficial tissues of scrotum and penis without any cause [2, 3]. Similar condition was reported by Bauriene in 1764 where he described a case of scrotal gangrene due to traumatic injury from the horn of an ox, which was treated by debridement [4]. Over the years, the definition of Fournier's Gangrene was broadened to include necrotizing infections of the genitalia.

Currently, Fournier's Gangrene is said to be a sub classification of necrotizing fasciitis. Hence, Fournier's Gangrene is described as necrotizing soft tissue infections originating from

or limited to the genitalia or perineum irrespective of gender [1]. We report a case of Fournier's Gangrene, presenting with a different causative factor.

### CASE REPORT

A Fifty year old male presented to the emergency room with fever, pain and discharge from the peri-anal and scrotal region since past 5 days. There was history of diabetes mellitus for which he was on oral hypoglycaemic agents. On examination, vitals were stable and local examination showed scrotum was oedematous and tender with crepitations felt. There was patchy gangrene all over the scrotum with foul-smelling purulent discharge (Figure 1). A provisional diagnosis of Fournier's Gangrene was made. He was taken up for emergency debridement. When we debrided the tissue over the perineum we observed a fish bone(Fig 2) and immediately the etiological factor was noted. Pus was sent for culture and sensitivity test. Post operatively patient needed multiple sittings of debridement , appropriate antibiotics according to sensitivity and the wound slowly showed healthy granulation tissue.

On day 15 after admission, patient was taken up for SSG and wound closure. He was discharged on day 28<sup>th</sup> of admission(Fig 3) with no complications. Patient was followed up at 50<sup>th</sup> and 80<sup>th</sup> day with no symptoms.

### DISCUSSION

Fournier's gangrene is a disease with high mortality with male predominance [5].J. R. Adams Jr. Et al and G. Ekingen described cases of Fournier's gangrene in children. The incidence of furniers gangrene is also increased [6][7].

In various literatures many predisposing factors have been explained Out of which, diabetes, old age, alcoholism, obesity, varicella infection, immunocompromised states, paraplegia, and renal insufficiency are most common. The most commonly seen foci of infection are those arising from gastrointestinal tract (30% to 50%), genitourinary tract (20% to 40%), and cutaneous injuries and soft tissue (20%). There are several studies devoted to the aetiology,gender,the microbial profile and treatment strategies for Necrotising fasciitis(8).We wish to focus on the occurrence of NF secondary to perforation of the small or large intestine. In our case Fournier's gangrene was caused by impacted fish bone. [9] Fish bones are known to perforate the ileum and the rectosigmoid, The latter site is common due to the anatomic angulations and narrow lumen.The foreign body usually remains in the extra luminal space and causes an abscess. There are a few reports from Japan of NF secondary to fish bone perforating the rectum and causing NF of the perineum and scrotum(10,11). There are reports of NF secondary to perforation due to rectal and caecal malignancy(12,13), due to a toothpick perforating the intestine(14), due to pro myelocytic leukaemia(15) and secondary to transmigration of bacteria from a perforated malignancy(16,17,18).

Multidisciplinary approach is required in managing Fournier's gangrene. Initial resuscitation with fluid therapy and restoration of cardiopulmonary function is done. The mainstay of the treatment is aggressive, radical, multiple sessions of debridement with adequate antibiotics. In some cases with proper surgical debridement, local wound care and antibiotic therapy, healthy granulation tissue appears, and primary wound closure can be done. Adjuncts in treatment include hyperbaric oxygen, immunoglobulins and sometimes plasmapheresis

However in significant tissue loss, reconstructive procedure such as spilt skin graft and flap covers may be considered(19).

## CONCLUSION

Necrotising fasciitis requires radical aggressive debridement and appropriate antibiotics. This case study ,highlights the rare occasion, when a migrating fish bone triggers a necrotising fasciitis in a diabetic person.

## REFERENCES

- 1). Hota, P. K. (2012). Fournier's Gangrene: Report of 2 Cases. Case Reports in Emergency Medicine, 2012, 1–4. <https://doi.org/10.1155/2012/984195>.
- 2).J. A. Fournier, "Gangrene foudroyante de la verge," *Semaine Médicale*, vol. 4, pp. 589–597, 1883.
- 3).J. A. Fournier, "Etude clinique de la gangrene foudroyante de la verge," *Semaine Médicale*, vol. 4, pp. 69–74, 1884.
- 4).H. Bauriene, "Sur une plaie qui s'est terminée par la sphacèle de la scrotum," *Journal de Médecine, Chirurgie, Pharmacie*, vol. 20, pp. 251–256, 1764.
- 5). N. Eke, "Fournier's gangrene: a review of 1726 cases," *British Journal of Surgery*, vol. 87, no. 6, pp. 718–728, 2000.
- 6).J. R. Adams Jr., J. A. Mata, D. D. Venable, D. J. Culkun, and J. A. Bocchini, "Fournier's gangrene in children," *Urology*, vol. 35, no. 5, pp. 439–441, 1990.
- 7).Kita, K., Uchi, H., Tsujita, J., Gondou, T., Tashiro, A., Nakahara, T., Takahara, M., Moroi, Y., & Furue, M. (2012). A case of Fournier's gangrene occurring after removal of a fish bone. *Nishinohon Journal of Dermatology*, 74(2), 158-160. <https://doi.org/10.2336/nishinohonhifu.74.158>
- 8).G. Ekingen, T. Isken, H. Agir, S. Öncel, and A. Günlemez, "Fournier's gangrene in childhood: a report of 3 infant patients," *Journal of Pediatric Surgery*, vol. 43, no. 12, pp. e39–e42, 2008.
- 9).R. Czymek, P. Frank, S. Limmer et al., "Fournier's gangrene: is the female gender a risk factor?" *Langenbeck's Archives of Surgery*, vol. 395, no. 2, pp. 173–180, 2010.
- 10).R. Vick and C. C. Carson III, "Fournier's disease," *Urologic Clinics of North America*, vol. 26, no. 4, pp. 841–849, 1999.
- 11)Daisuke Kudoh, Masateru Maruyama, Hiroyuki Kasajima, Yutaka Hara, Atsushi Yoshida, Shinsaku Suzuki, Shigeru Toyama A Case of Fournier's Gangrene Due to a Fish Bone <https://doi.org/10.11231/jaem.28.965>
- 12) Samuel T.W. Lo, Siu Lan Leung, Chung Ngai Tang Abdominal wall necrotising fasciitis secondary to fish bone ingestion *J Surg Case Rep*. 2015 Jul; 2015(7): rjv078. Published online 2015 Jul 10. doi: 10.1093/jscr/rjv078
- 13)McGregor DH, Liu X, Ulusarac O, Ponnuru KD, Schnepf SL Colonic perforation resulting from ingested chicken bone revealing previously undiagnosed colonic adenocarcinoma: report of a case and review of literature..*World J Surg Oncol*. 2011 Feb 18;9:24. doi: 10.1186/1477-7819-9-24.

- 14) R P Singh, J A Gardner Perforation of the sigmoid colon by swallowed chicken bone: case reports and review of literature *Int Surg.* Apr-Jun 1981;66(2):181-3.
- 15) Markus Rupp, Gero Knapp, David Weisweiler, Christian Heiss, Volker Alt Intestinal Perforation by a Toothpick as Reason for Necrotizing Fasciitis *J Bone Jt Infect.* 2018; 3(4): 226–229. Published online 2018 Oct 4. doi: 10.7150/jbji.29065
- 16) Vanessa Fiorini Furtado, Felipe Batalini, Pedro Staziaki, Andrey Prilutskiy, John Mark Sloan Acute promyelocytic leukaemia presenting as necrotising fasciitis of the perineum (Fournier gangrene) *BMJ Case Rep.* 2018; 11(1): e226837. Published online 2018 Dec 7. doi: 10.1136/bcr-2018-226837 PMID: PMC6301556
- 17) William David George Evans, Conchubhair Winters, Eshan Amin Necrotising fasciitis secondary to perforated rectal adenocarcinoma presenting as a thigh swelling *BMJ Case Rep.* 2015; 2015: bcr2014208312. Published online 2015 Mar 28. doi: 10.1136/bcr-2014-208312
- 18) Kentaro Sato, Hitoshi Yamamura, Yoshiyuki Sakamoto, Hajime Morohashi, Takuya Miura, Toru Yoshikawa, Akiko Suto, Satoru Tsuruta, Kenichi Hakamada Necrotizing fasciitis of the thigh due to penetrated descending colon cancer: a case report
- 19) Laura S Heidelberg, Erica N Pettke, Teresa Wagner, Lauren Angotti An atypical case of necrotizing fasciitis secondary to perforated cecal cancer *J Surg Case Rep.* 2020 Nov; 2020(11): rjaa371. Published online 2020 Nov 10. doi: 10.1093/jscr/rjaa371
- 20) B. Sarani, M. Strong, J. Pascual, and C. W. Schwab, “Necrotizing fasciitis: current concepts and review of the literature,” *Journal of the American College of Surgeons*, vol. 208, no. 2, pp. 279–288, 2009.

FIGURE1.



FIGURE 2



FIGURE 3.

