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Visual Case Discussion

Fournier's gangrene

Fallon Bushee*, Michael Murray, Michael Pasirstein

Drexel University College of Medicine, Philadelphia, PA, United States



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Acute scrotum

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A 46 year-old male with a history of type II diabetes, obesity and left below knee amputation presented with several days of worsening scrotal pain. He first noticed a large papule on his scrotum, but delayed evaluation believing it would resolve. Vital signs were BP 160/80, HR 117, RR 18, and T 102° F. Exam showed an exquisitely tender, erythematous and tense scrotum with crepitus inferiorly and posteriorly, tracking toward the perineum. Antibiotics were started and urology was consulted. Although Fournier's Gangrene is a clinical diagnosis, CT scans were emergently obtained to determine the extent of tissue involvement and to plan for surgery. The patient underwent emergent wide surgical debridement. He was discharged after two weeks of antibiotics and additional debridements.^{1,2,3} (Figs. 1–3).



Fig. 1. CT abdomen/pelvis, coronal view. Gas indicated by arrow.

* Corresponding author.

E-mail address: feb32@drexel.edu (F. Bushee).



Fig. 2. CT pelvis, axial view. Gas indicated by arrow.



Fig. 3. CT pelvis, sagittal view. Gas indicated by arrow.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.visj.2019.100581](https://doi.org/10.1016/j.visj.2019.100581).

Reference

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2. Tintinalli JE, Stephen Stacysznski J, John Ma O, et al. *Tintinalli's Emergency Medicine: A Comprehensive Study Guide*. eighth ed. McGraw-Hill Education; 2016 Chapter 93: Male Genital Problems.
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Questions

1. If Fournier's gangrene is suspected, which of the following is the best next step in diagnosis or management?
 - a. Culture of infectious focus.
 - b. Blood Culture.
 - c. Imaging.
 - d. Begin treatment immediately.
2. Which of the following etiologies of acute scrotum is correctly paired with its treatment?
 - a. Epididymitis: Antibiotics.
 - b. Testicular torsion: orchipexy.
 - c. Appendageal torsion: surgery.
 - d. Scrotal edema: incision and drainage.

Answers

1. Begin treatment immediately. Explanation: Fournier's gangrene is a polymicrobial infection that often presents late in the disease course and can cause death within hours of presentation. As prompt recognition and treatment is required, it is inadvisable to delay treatment pending results of cultures. Treatment of Fournier's gangrene requires wide surgical debridement; therefore it is also inadvisable to rely on a strictly clinical diagnosis. Ultrasound, CT or x-ray will show gas in the scrotum, confirming the diagnosis.
2. Epididymitis: Antibiotics. Explanation: Epididymitis in patients under 35 years old is usually caused by gonorrhea or chlamydia and can be treated with ceftriaxone and doxycycline. Historically, in patients older than 35, gram-negative bacteria such as E. Coli should be suspected, and treated with fluoroquinolones; however sexually transmitted infections should be considered in this age group as well. Testicular detorsion can be performed standing at the foot of the bed: to reverse torsion, the right testis should be rotated counterclockwise, and the left should be rotated clockwise—similar to how one would open a book. Torsion of one of the four appendices of the testicles (appendix testis, appendix epididymis, paradidymis, and vas aberrans, which have no known function) is common in young boys and often resolves on its own within five days with supportive treatment including analgesics and bed rest. The same is true of scrotal edema.