

IMAGES IN EMERGENCY MEDICINE

Urology

Man with groin swelling

Michael J. Yoo MD | Juliette M. Conte MD

Department of Emergency Medicine, Brooke Army Medical Center, Fort Sam Houston, Texas, USA

Correspondence

Michael J. Yoo, MD, Department of Emergency Medicine, Brooke Army Medical Center, Fort Sam Houston, TX 78234, USA.

Email: michael.jayyoo@gmail.com

1 | CASE PRESENTATION

A 44-year-old man presented to the emergency department with groin swelling 4 days after undergoing robotic-assisted prostatectomy and bilateral pelvic lymph node dissection for prostate cancer. The patient stated that the swelling started acutely 1 day before presentation. He denied any pain or systemic symptoms and continued to void with an indwelling Foley catheter placed postoperatively. A contrasted computed tomography (CT) of the abdomen and pelvis was obtained.

2 | DIAGNOSIS

2.1 | Non-infectious postoperative subcutaneous emphysema

CT demonstrated extensive subcutaneous emphysema tracking from the scrotum through the abdominal wall and into the chest and bilateral lower extremities along fascial planes (Figures 1 and 2). Although the patient's examination and imaging were concerning for Fournier gangrene, the etiology was favored to be a known postoperative complication.¹

Scrotal emphysema has been cited as frequently as 3.4% following prostatectomy, with higher rates in the laparoscopic versus open approach because of its technical challenges.¹⁻³ This complication is more likely to occur in prolonged surgeries with high insufflation pressures, required in patients with a higher body mass.⁴ Although infectious etiologies of subcutaneous emphysema are surgical emergencies, postoperative subcutaneous emphysema often is observed for self-resolution.⁵

The patient received broad spectrum antibiotics for presumed Fournier gangrene in the ED while being worked up and admitted to the

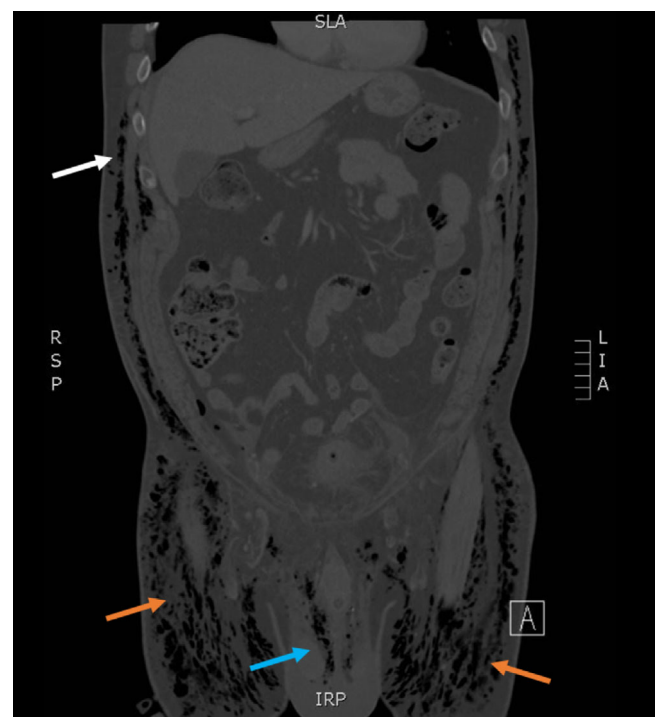


FIGURE 1 Computed tomography of the abdomen and pelvis (coronal view) revealing subcutaneous emphysema affecting the chest (white arrow), abdominal wall, bilateral lower extremities (orange arrows), and scrotum (blue arrow)

surgical service for observation. He remained hemodynamically stable with improving emphysema despite deescalation in antibiotic therapy and was discharged uneventfully after 2 days.

CONFLICTS OF INTEREST

Both authors are affiliated with the US military. This image case does not reflect the views or opinions of the US government, Department

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2021 The Authors. *JACEP Open* published by Wiley Periodicals LLC on behalf of American College of Emergency Physicians



FIGURE 2 Computed tomography of the abdomen and pelvis (axial view) revealing significant scrotal subcutaneous emphysema (white arrow) tracking along the abdominal walls (blue arrow)

of Defense or its components, US Army, US Air Force, or Brooke Army Medical Center.

REFERENCES

1. Grossi FS, Di Lena S, Barnaba D, et al. Laparoscopic versus open radical retropubic prostatectomy: a case-control study at a single institution. *Arch Ital Urol Androl.* 2010;82(2):109-112.
2. Arai Y, Egawa S, Terachi T, et al. Morbidity of laparoscopic radical prostatectomy: summary of early multi-institutional experience in Japan. *Int J Urol.* 2003;10(8):430-434.
3. Zhang YS, Li HZ, Ji ZG, et al. Complications of laparoscopic surgery: a 11-year single institute experience. *Beijing Da Xue Xue Bao Yi Xue Ban.* 2013;45(4):584-587.
4. Gilbert SM. *Complications of Urologic Surgery E-Book.* 4th ed. Philadelphia: Saunders; 2009:357-364.
5. Sarma J. Unilateral periorbital and cervical subcutaneous emphysema following extraperitoneal laparoscopic radical prostatectomy. *Open Anesthesiol J.* 2011;5(1):1-4.

How to cite this article: Yoo MJ, Conte JM. Man with groin swelling. *JACEP Open.* 2021;2:e12537.
<https://doi.org/10.1002/emp2.12537>