

## CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

### Surgery Quiz – Case 40

An 84-year-old NYHA class II male patient, with a history of (a) permanent atrial fibrillation and combined mechanical aortic valve replacement with coronary artery bypass graft surgery 16 years prior under acenocoumarin, and (b) open mesh plug hernioplasty for a primary, lateral, size 2 (EHS PL2F0) inguinal hernia 3 years prior, presented to the emergency department with symptoms and signs of severe sepsis (temperature >38 °C, heart rate 93/min, respiratory rate 16/min, white blood cells (WBC) 23.600/mm<sup>3</sup>, international normalized ratio (INR) 4.6, lactate value of 4.6 mmol/L) without hypotension and organ dysfunction in the setting of right inguinal necrotizing skin and soft tissue infection (fig. 1). Supportive treatment initiated including administration of lactated Ringer's solutions, 2 IV doses of 10 mg vitamin K, 2 fresh frozen plasma (FFP) units and empirical coverage with daptomycin 500 mg IV q24h. On day 1 of hospitalization, the patient submitted to early source control with wide opening of the surgical incision, abscess drainage and debridement of infected soft tissues followed 3 days later by completion debridement along with complete infected mesh plug removal with no fascial closure and second intention wound healing. On day 6 of hospitalization, the patient developed an enterocutaneous fistula between the cecum and the open inguinal wound treated with exploratory laparotomy, copious detachment of the dense adherent cecum to the deep inguinal ring followed by partial cecectomy. Postoperatively, the inguinal wound managed with vacuum assisted closure with uneventful recovery.

What is your diagnosis?



Figure 1.

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ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2022, 39(4):570

K. Boulas,<sup>1</sup>  
A. Xenou,<sup>2</sup>  
E. Vranou,<sup>2</sup>  
M. Nathanailidou,<sup>1</sup>  
K. Sitaridis,<sup>1</sup>  
C. Kampaki,<sup>2</sup>  
A. Spanoudaki,<sup>2</sup>  
A. Hatzigeorgiadis<sup>1</sup>

<sup>1</sup>Department of General Surgery,  
General Hospital of Drama, Drama  
<sup>2</sup>Department of Radiology, General  
Hospital of Drama, Drama, Greece

#### Comments

*In our patient's case, deep surgical site infection was the result of late development of an enterocutaneous fistula associated with plug erosion of the underlying cecum after the former elective open mesh inguinal hernia repair. In general, the risk of mesh-related complications increases continuously with time. Approximately 6.1% and 4.2% of patients after open and laparoscopic mesh hernia repair, respectively, require subsequent reoperation for mesh-related complications with a cumulative incidence of 4.5% at 5 years of follow-up. Compared with laparoscopic mesh hernia repair, open mesh hernia repair is an independent risk factor for long-term complications with a median time of occurrence 11 and 24 months after open and laparoscopic mesh repair, respectively. The mesh removal rates after open and laparoscopic mesh repair are 2.6% and 1.0%, respectively. The most common reason for mesh removal is mesh infection (63.0%) followed by pain (19.6%), bowel obstruction (15.2%) and bowel perforation (2.2%).*

#### References

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2. DEVIN CL, OLSON MA, TASTALDI L, ZHENG R, BERGER AC, PALAZZ F. Surgical management of infected abdominal wall mesh: An analysis using the American Hernia Society Quality Collaborative. *Hernia* 2021, 5, doi: 10.1007/s10029-020-02355-8

Corresponding author:

K. Boulas, Department of General Surgery, General Hospital of Drama, 661 00 Drama, Greece  
e-mail: boulaskonstantinos@gmail.com

Answer: Late enterocutaneous fistula due to plug erosion of the underlying cecum after elective open inguinal hernia repair