Endoscopic Ultrasound-Guided Transgastric Drainage as an Alternative Treatment for Splenic Abscess: A Case Report

Endoskopska ultrazvočno vodena transgastrična drenaža kot alternativno zdravljenje vraničnega abscesa: prikaz primera

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ABSTRACT

Splenic abscess is a rare clinical condition, most commonly occurring in immunocompromised individuals, including patients with malignancy. Surgical management or percutaneous drainage has traditionally been the mainstay of treatment; however, endoscopic ultrasound–guided drainage has emerged as a safe and less invasive alternative, particularly for high-risk patients who are poor surgical candidates.

IZVLEČEK

Vranični absces je redko klinično stanje, ki se najpogosteje pojavlja pri posameznikih z oslabljenim imunskim sistemom, vključno z bolniki z malignimi boleznimi. Kirurško zdravljenje ali perkutana drenaža je tradicionalno bila glavna metoda zdravljenja; vendar se je endoskopska drenaža z ultrazvočnim vodenjem izkazala kot varna in manj invazivna alternativa, zlasti za bolnike z visokim tveganjem, ki niso primerni za operacijo.

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INTRODUCTION

Splenic abscess is a life-threatening condition associated with a mortality rate of up to 70 % if left untreated (1, 2). We report a case in which endoscopic drainage proved to be a viable and effective management strategy in a polymorbid patient with a splenic abscess. Endoscopic ultrasound–guided (EUS) abscess drainage has been infrequently described in the literature, as it is a relatively novel technique first reported in 2006; however, EUS-guided drainage has previously demonstrated success in the management of walled-off necrosis. (3, 4). This case underscores the importance of a multidisciplinary approach in the evaluation of splenic abscess and highlights the safety and effectiveness of endoscopic management.

CASE REPORT

A 75-year-old man with a medical history of diabetes mellitus, hypertension, and prior myocardial infarction was admitted to the internal medicine department of a regional hospital after presenting with signs of bacterial infection. Laboratory investigations revealed markedly elevated C-reactive protein levels. Computed tomography demonstrated a subcapsular splenic abscess located at the splenic hilum, appearing as a well-circumscribed, predominantly fluid-filled collection containing a few air bubbles, measuring 15 × 15 cm, and bulging into the gastric wall. Owing to the abscess location and the associated high procedural risk, percutaneous drainage was deemed unsuitable by interventional radiology. Given the patient's polymorbidity, surgical management was also contraindicated. Following multidisciplinary consultation, endoscopic ultrasound–guided abscess drainage was selected as the preferred therapeutic approach.

Prior to endoscopy, the patient underwent general anaesthesia with endotracheal intubation to ensure adequate sedation and airway protection. A gastroscope was introduced orally and advanced into the stomach, where the abscess was identified (Figure 1). Under endoscopic ultrasound guidance, the collection was punctured using a 19-gauge needle, and 2 mL of purulent, reddish fluid was aspirated. Subsequently, a 15 × 10 mm Hot AXIOS™ lumen-apposing metal stent was deployed through the posterior gastric wall just below the cardia to facilitate abscess drainage (Figure 2). The procedure was completed successfully without any immediate adverse events.

An extended-spectrum β-lactamase (ESBL)–producing Escherichia coli sensitive to piperacillin–tazobactam was isolated from the abscess fluid, and targeted antibiotic therapy was initiated accordingly. The patient tolerated the procedure well. Over the subsequent weeks, inflammatory markers progressively decreased, accompanied by clinical improvement. Follow-up computed tomography at 2 and 3 weeks post-procedure demonstrated a gradual reduction in abscess size.

Figure 1. Splenic abscess seen during the EUS.

Figure 2. Hot AxiosTM stent, used for abscess drainage, as seen on gastroscopy.

At 4 weeks, only a small residual collection measuring approximately 3 cm was identified on CT imaging (Figure 3); consequently, the stent was removed (Figure 4), and antibiotic therapy was continued. After 69 days, antimicrobial treatment was discontinued, and the patient was discharged back to the nursing home. An abdominal ultrasound scan performed two months after stent removal showed no signs of abscess recurrence. During the two-year follow-up period, there were no clinical signs of complications related to the procedure.

Figure 3. Splenic abscess as seen before and during the EUS guided drainage with Hot AxiosTM stent.

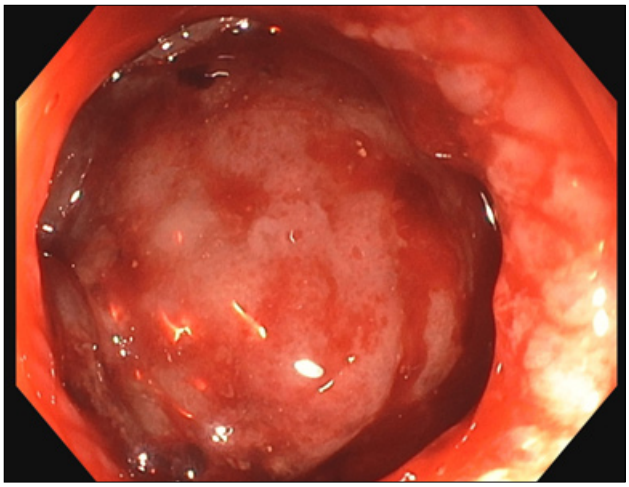
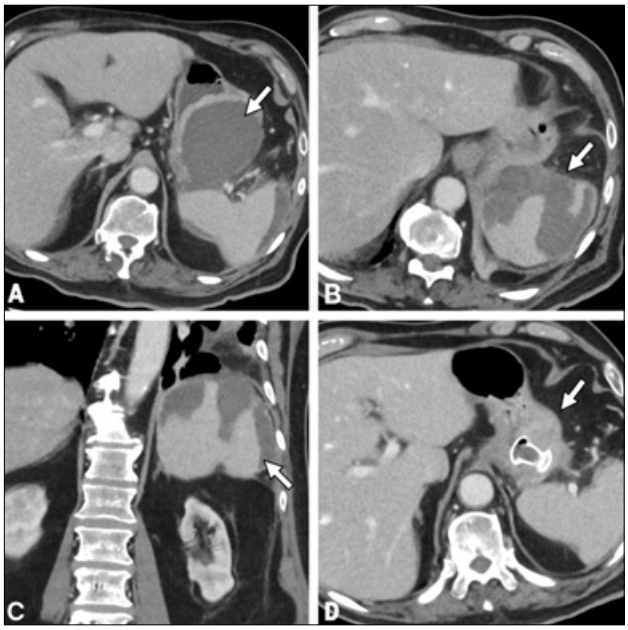


Figure 4. Hot AxiosTM stent was removed after 4 weeks, no complications were reported.



CONCLUSION

A splenic abscess is a rare condition that can be caused by transcatheter arterial embolisation or pancreatic tail adenocarcinoma, for example (3, 4). Endoscopic ultrasound-guided abscess drainage is a rarely used therapy for this condition, first described in 2006 (4). It can be an alternative to surgical treatment for polymorbid patients, as in the case reported here (1).

Patient consent

Written informed consent was obtained from the patient.

References

1. Gutama B, Wothe JK, Xiao M, Hackman D, Chu H, Rickard J. Splenectomy versus Imaging-Guided Percutaneous Drainage for Splenic Abscess: A Systematic Review and Meta-Analysis. Surgical Infections. 2022; 23 (5): 417-29.
2. Lotfollahzadeh S, Mathew G, Zemaitis MR. Splenic Abscess. StatPearls. Treasure Island (FL): StatPearls Publishing.Copyright © 2024, StatPearls Publishing LLC.; 2024.
3. Tanikawa T, Kawada M, Ishii K, Urata N, Nishino K, Suehiro M, et al. Efficacy of endoscopic ultrasound guided abscess drainage for non pancreatic abscesses: A retrospective study. JGH Open. 2023; 7 (7): 470-5.
4. Armellini E, Metelli F, Sauta MG, Marini M, Pace F, Patelli G, Nastasi G. Endoscopic ultrasound-guided drainage of a splenic abscess using lumen-apposing metal stent. Endoscopy. 2023; 55 (S 01): E147-E8.