

Pericystic-Digestive Anastomosis for Hepatic Hydatid Cysts: Indications, Outcomes, and a Surgical Decision Algorithm

Stere Popescu^{1,2,3}, Tina Popescu⁴, Bogdan Obada^{2,5}, Teodor Ștefan Nițu^{1,2}, Irina Nițu^{1,2}, Maria Sabina Neacșu^{1,2}, Ana Maria Grigorescu^{1,2}, Florin Gabriel Pănculescu², Florin Daniel Enache^{2,6}, Mihai Victor Lupașcu², Iulian Manac^{2,6}, Daniel Ovidiu Costea^{1,2}

¹Department of General Surgery, Emergency Hospital of Constanța, Romania

²Ovidius University, Faculty of Medicine and Pharmacy, Constanța, Romania

³Department of Anatomy, Faculty of Medicine, Ovidius University, Constanța, Romania

⁴Hospital Pharmacy, Emergency Hospital of Constanța, Romania

⁵Department of Orthopedics and Traumatology, Emergency Hospital of Constanța, Romania

⁶Department of Pediatric Surgery and Pediatric Orthopedics, Emergency Hospital of Constanța, Romania

Abstract

Introduction: Pericystic-digestive anastomosis is a rarely used but valuable surgical option in the management of complicated hepatic hydatid cysts.

Materials and Methods: This retrospective observational study included 24 patients operated between 2010 and 2023 in a general surgery center in Romania. We analyzed intraoperative decision-making, type of anastomosis, and postoperative outcomes.

Results: Roux-en-Y jejunostomy was performed in 19 patients, and pericystogastrostomy in 5. All patients had intraoperatively confirmed biliary fistulas ≥ 5 mm. There were no deaths or reinterventions. Minor complications included transient febrile syndrome (12.5%), delayed bowel transit (8.3%), and one percutaneously drained subhepatic collection (4.1%). Follow-up imaging showed progressive reduction of residual cavities in all cases.

Conclusions: When correctly indicated, pericystic-digestive anastomosis provides safe and effective internal drainage for large, centrally located cysts with biliary fistulas and well-organized pericysts. Based on clinical experience and current literature, we propose a practical decision-making algorithm to guide surgical management in complicated hepatic echinococcosis.

Keywords: hepatic hydatid cyst, pericystic-digestive anastomosis, biliary fistula, Roux-en-Y jejunostomy surgical treatment, case selection, decision-making algorithm