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EUS-Guided Transgastric Drainage of Intraabdominal Fluid Collections

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Abstract

Intraabdominal fluid collections can be a significant cause of morbi-mortality among patients with acute pancreatitis and those who underwent surgery, especially oncological ones. Nowadays, the treatment tends to be minimally invasive, so that the patient's recovery would be shorter and the quality of life higher. EUS (endoscopic ultrasound) has emerged in the last decade to fulfill that demand, alongside percutaneous and surgical drainage in the management of perigastric collections.
Objectives: The main objective of this paper is to evaluate the efficacy of EUS guided drainage in terms of techincal and clinical success. Secondary objectives refer to the assessment of complete resolution of intraabdominal collection, presence of infection after drainage, overall survival.
Methods: We conducted a prospective study by enrolling 31 patients who were diagnosed using EUS with perigastric intraabdominal fluid collections, from an overall of 788 EUS performed over a period of 2 years. We analyzed their evolution during 6 months after treatment, by regular examinations (ultrasound/endoscopic/computed tomography). All of them were in-patients of Bucharest Clinical Emergency Hospital, either in Endoscopy or in Surgery Departments. Data collected was processed in IBM SPSS Statistics 20.
Results: Overall mean age was 51 year and intraabdominal collections average was 109 mm (range 34 – 250 mm) and was correlated with the method of treatment ($p < 0.005$). Patients underwent different methods for their intraabdominal collections: EUS drainage, CT (computed-tomography)-guided percutaneous drainage, surgical intervention, alone or combined when needed. Overall mortality was 9,3% and was mainly related to the severity of the case and sepsis.
Conclusions: We conclude that endoscopic ultrasound can be the first choice for drainage of intra-abdominal perigastric fluid collections because it is a safe and effective technique with 100 % technical success, and with over 80 % clinical success assures a better quality of life. For collections with a diameter larger than 127 mm, we can expect however the need of combined treatment, EUS and surgery.

Key words: intraabdominal collections, transgastric drainage, percutaneous, surgery, endoscopic ultrasound (EUS)