



AB048. 24. Minimally invasive surgical management of spontaneous esophageal perforation (Boerhaave's syndrome)

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Background: Spontaneous esophageal perforation (Boerhaave's syndrome) is a highly morbid condition traditionally associated with poor outcomes. The Pittsburgh perforation severity score (PSS) accurately predicts risk of morbidity, length of stay (LOS) and mortality. Operative management is indicated among patients with medium [3–5] or high (>5) PSS, however, the role of minimally invasive surgery remains uncertain.

Methods: Consecutive patients presenting with Boerhaave's syndrome with intermediate or high PSS from 2012–2018 were reviewed. Demographic, clinical presentation, management and outcomes were analysed.

Results: Eleven patients (82% male) with a mean age of 61.3 years (range, 37–81 years) were included. Three patients had intermediate and eight had high PSS (7.5 ± 2.8 , range, 4–12). The mean time from onset of symptoms to diagnosis was 24 ± 14 hours and APACHE II score was 12.4 ± 6.2 . Thoracoscopic debridement and primary repair was performed in eight cases, with two perforations repaired primarily over a T-tube. Laparoscopic feeding jejunostomy was performed in all patients. Critical care LOS was 7.9 ± 6.8 days (range, 1–26 days), while inpatient LOS was 19.9 ± 12.5 days (range, 8–46 days), significantly associated with PSS ($P=0.03$, $R^2=0.46$). Mean comprehensive complications index was 38.3 ± 26.2 , with grade IIIa and IV morbidity in 45% and 9%, respectively. One patient developed dehiscence at the primary repair, which was managed non-operatively. In-hospital and 90-day mortality was 9%.

Conclusions: Minimally invasive surgical management of spontaneous esophageal perforation with high perforation severity scores is feasible and safe, with outcomes which compare favourably to the published literature.

Keywords: Boerhaave's syndrome; esophageal perforation; morbidity; mortality; Pittsburgh perforation severity score (PSS)

doi: 10.21037/map.2019.AB048

Cite this abstract as: Elliott JA, Buckley L, Albagir M, Athanasiou A, Murphy T. Minimally invasive surgical management of spontaneous esophageal perforation (Boerhaave's syndrome). *Mesentery Peritoneum* 2019;3:AB048.