

Minimally invasive versus open pancreatic necrosectomy: a 5-year meta-analysis

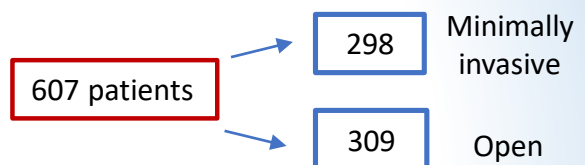
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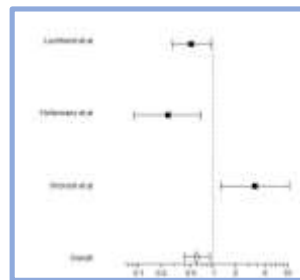


Introduction: **Necrotizing pancreatitis** is a severe form of acute pancreatitis that can lead to a significant morbidity and mortality. Minimally invasive techniques are being developed to improve outcomes regarding the management of this condition. The main concern of these new approaches is the need for reintervention, delaying the definitive treatment.

Results: Five studies met our criteria: 2 retrospective analysis, 1 randomized controlled trial, 1 observational and 1 systematic review.



Aim: To compare outcomes of minimally invasive procedures and open necrosectomy to manage necrotizing pancreatitis.

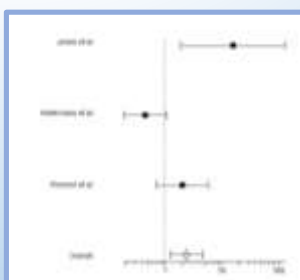
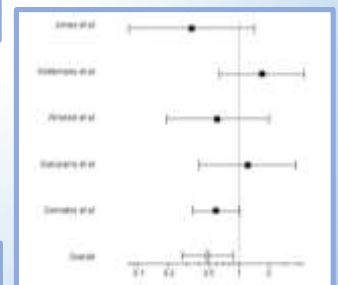


Forest plot 1:
Postoperative major complications (**OR:0.38**;
CI: 0.21-0.70; **p=0.002**)

Material and Methods: We performed a meta-analysis following PRISMA guidelines searching in Cochrane library (CENTRAL), Embase and PubMed/Medline databases between July 2015 and 2020. using WinPepi program based on an available-case analysis (fixed-effect model).

We calculated the odds ratio (OR) and the mean difference with 95% confidence intervals (CI). Statistically significance was defined as $p < 0.05$.

Forest plot 2:
Mortality in 90 days (**OR:0.49**;
CI: 0.27-0.89;
p=0.019)



Forest plot 3:
Reinterventions (**OR:2.40**;
CI: 1.23-4.69; **p=0.011**)

Discussion/Conclusion: Minimally invasive procedures have proven to show advantages over open necrosectomy in initial treatment of necrotizing pancreatitis. They are associated with **lower rates of major complications** as well as **mortality** in all included studies. However, some studies revealed a higher rate in **reinterventions** with minimally invasive approaches.