

# INCIDENCE AND RISK FACTORS FOR INCISIONAL HERNIA AFTER PANCREATODUODENECTOMY: A SYSTEMATIC REVIEW AND PROPORTIONAL META-ANALYSIS

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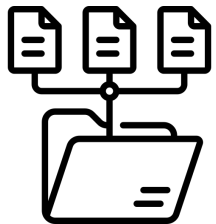
## INTRODUCTION

This study aims to evaluate the incidence of incisional hernia (IH) following open pancreatoduodenectomy (PD) and identify associated risk factors.

## MATERIAL & METHODS



A **systematic review** and **meta-analysis** were conducted per PRISMA guidelines



**Databases:**  
Embase  
PubMed  
Web of Science  
CENTRAL

**Primary outcome:** incidence of IH's  
**Secondary outcome:** risk factors associated with IH development

A meta-analysis of proportions calculated pooled incidence rates with 95% confidence intervals (CI). Heterogeneity was assessed using the I<sup>2</sup> statistic, and sensitivity analyses were performed.

Figure 1. Proportional meta-analysis of the incidence of IH post PD.

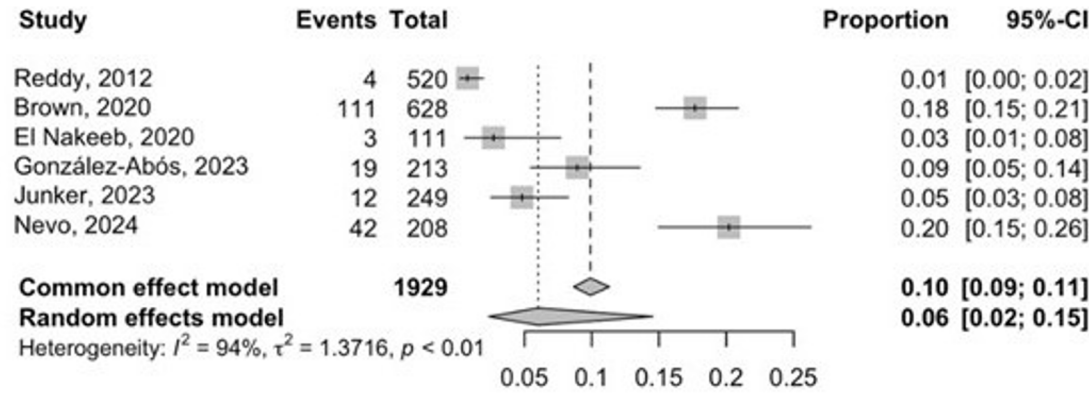
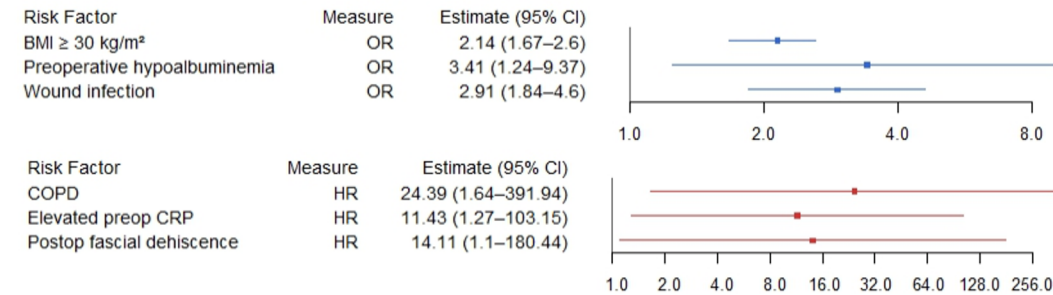


Figure 2. Risk factors for IH with effects measures.



## RESULTS

- **6 studies** (1,929 patients) met included
- Pooled incidence of IH following open PD was **6% (95% CI: 2%–15%, I<sup>2</sup>=94%)**
- **Risk factors** significantly associated with IH:
  - BMI ≥ 30 kg/m<sup>2</sup> (OR 1.67–2.6)
  - Preoperative hypoalbuminemia (OR 3.41; 95% CI: 1.24–9.37)
  - COPD (HR 24.39; 95% CI: 1.64–391.94)
  - ↑ preoperative CRP (HR 11.43; 95% CI: 1.27–103.15)
  - Postoperative fascial dehiscence (HR 14.11; 95% CI: 1.10–180.44)
  - Wound infection (OR 2.91; 95% CI: 1.84–4.60)

## CONCLUSION

- IH's have a pooled incidence of 6% following open PD
- Several modifiable and non-modifiable risk factors contribute to its development
- Need for targeted preventive strategies in high-risk patients

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Table 1 and  
references!

