

Minimally invasive approach in emergency for the treatment of acute incarcerated/strangulated ventral hernias.

A systematic review and meta-analysis

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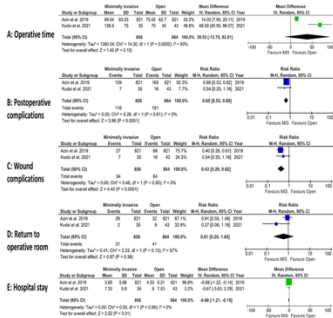
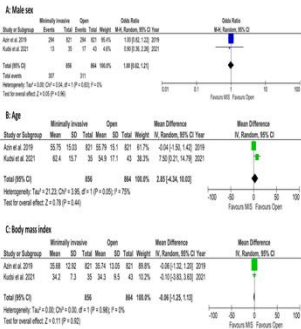
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Aims:

This study aims to report the currently available evidence on minimally invasive surgery (MIS) in emergencies for treating acute incarcerated/strangulated ventral/primary or incisional hernias and compare it with the open approach.

Material & Methods:

A systematic review was conducted according to the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) statement



Meta-analysis of preoperative outcomes. A: Male sex; B: Age; C: Body mass index.

Meta-analysis of perioperative outcomes. A: Operative time; B: Postoperative complications; C: Wound complications; D: Return to the operating room; E: Hospital stay

Results:

Six articles were included. Results of the meta-analysis based on 1720 patients and two articles show that mean operative time was shorter in the open repair group compared to the MIS group.

Overall, 13.6% and 20.9% postoperative complications were observed after MIS or open repair, respectively.

MIS was associated with a statistically significantly lower wound complication rate than the open approach.

The two approaches showed equivalent results regarding return to the operating room (RR 0.61).

The mean hospital stay in the MIS group was shorter than the open group.

Conclusions:

MIS in the emergency setting seems feasible for treating acute incarcerated ventral hernias. However, due to the limitations of the included studies, the obtained evidence should be analyzed with caution. Further prospective studies are required to draw definitive conclusions.