



## **Incisional Hernia**

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

## A systematic review and meta-analysis

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### Aims:

This study aims to report the currently available evidence on minimally invasive surgery (MIS) in emergencies for treating acute incarcer ated/strangulated ventral/prim ary or incision al 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

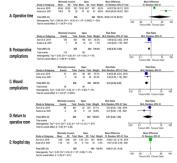
# See Bill P morely Tell (180 OF 2514 #21 P2589 F259 Study or Subgroup Mean SD Total Mean SD Total Weight M, Random, 95% CI Year



A: Male see

	Minimally invasive			Open			Wear Difference				Mean Difference			
Study or Subgroup	Mean	50	Total	Mean	\$0	Total	Weight	N, Random, 95% CI	Year	N, Random, 95% CI				
Azin et al. 2019	35.58	1232	821	35.74	13.05	821	89.8%	406[-132,126] 2	2018			1		
Rudoi et al. 2021	342	7.3	35	343	9.5	43	10.2%	4:10[383,363]	2021			1		
Total (95% CI)			856			84	100.0%	486[125,113]				1		
Heterogeneity: Tau" = 0.00; Chi" = 0.00; df = 1 (P = 0.58); P = 0% Test for pensal effect Z = 0.11 (P = 0.50)										-100	-50	. 0	50	100
Tell for betrail effect, 2 = 0.11 (P = 0.04)									Favours MS Favours Open					

Meta-analysis of preo perative outcomes. A: Male sex; B:Age: C: Body mass in dex.



Meta-analysis of perioperative outcomes, A: Operative time: R: Postonera tive com plications: C: Wound complications: D: Return to the operative room: E: Ho so ital stav

#### 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% postop 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 operative 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