

ملخص البحث السابع

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Direct trocar insertion vs. Veress needle technique in laparoscopic surgeries. A systematic review and meta-analysis.

Summary

Aim: To compare the safety and efficacy between Veress needle insertion and direct trocar

insertion in laparoscopic surgeries.

Methods: Relevant clinical trials were retrieved from major databases; Web of Science,

Cochrane CENTRAL, PubMed, and SCOPUS. The following outcomes were pooled for analysis:

failed entry, extraperitoneal insufflation, vascular lesion, omental lesion and visceral lesion,

site bleeding, reintervention, subcutaneous emphysema, solid organ lesion, and infection of

the trocar site. A fixed-effects model was used to analyze homogeneous outcomes, whereas

random-effects models were used to analyze heterogeneous outcomes.

Results: We included a total of twelve clinical trials. The pooled analysis showed that the

Veress needle was accompanied by a significant increase in the incidences of extraperitoneal

insufflation (RR = 0.204; 95% CI [0.136, 0.307], P = 0.001), omental lesion (RR = 0.444 95% CI

[0.239, 0.825], P = 0.01), and failed entry (RR = 0.169 95% CI [0.101, 0.284], P = 0.001). There

is no significant difference between both cohort regarding the vascular lesion (RR = 0.847 95%

CI [0.259, 2.777], P = 0.7), infection of the trocar site (RR = 0.583 95%CI [0.106, 3.216], P = 0.5,

and visceral lesion (RR = 1.308 95% CI [0.314, 5.438], P = 0.7.

Conclusion: The DTI was accompanied by a significantly lower incidence of complications such

as extraperitoneal insufflation, failed entry, omental lesion, and subcutaneous emphysema. On

the other hand, both cohorts showed similar results regarding; vascular lesions, visceral lesions,

reintervention, site bleeding, and solid organ lesion