

INPLASY PROTOCOL

To cite: Xiao et al. The efficacy of laparoscopic transabdominal preperitoneal hernia patching versus laparoscopic total extraperitoneal hernia repair: a systematic review and Meta-analysis. Inplasy protocol 2022120082. doi: 10.37766/inplasy2022.12.0082

Received: 19 December 2022

Published: 19 December 2022

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Support: None.

Review Stage at time of this submission: Preliminary searches.

Conflicts of interest:
None declared.

The efficacy of laparoscopic transabdominal preperitoneal hernia patching versus laparoscopic total extraperitoneal hernia repair: a systematic review and Meta-analysis

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Review question / Objective: Population:Adult patients with inguinal hernia Intervention:Total extraperitoneal (TEP) versus laparoscopic transabdominal preperitoneal (TAPP) hernioplasty Outcome: ① operation time; ②Early pain time after operation; ③ Inguinal discomfort; ④haematoma; ⑤seroma ; ⑥Hospitalization time; ⑦ Incidence of postoperative chronic pain; ⑧ Postoperative recurrence rate. Study design: Published randomized controlled trials (RCT) meet the eligibility criteria.

Condition being studied: The number of cases reported in the literature is small, the observed indicators are incomplete, the findings vary, the conclusions drawn from each study are not entirely convincing, and there is a lack of large samples, high-quality, long-term follow-up investigations and systems for both procedures.Currently, the choice between laparoscopic complete extraperitoneal repair and laparoscopic transabdominal preperitoneal repair remains somewhat controversial.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 December 2022 and was last updated on 19 December 2022 (registration number INPLASY2022120082).

INTRODUCTION

Review question / Objective: Population:Adult patients with inguinal hernia Intervention:Total extraperitoneal (TEP) versus laparoscopic transabdominal preperitoneal (TAPP) hernioplasty

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Rationale: As the standard of living continues to improve, the aging population is also increasing year by year, and inguinal hernia is one of the most common diseases in general surgery in the elderly.Surgery is the only way to cure the disease. With the advancement of science and technology, the level of medical care is rising, and patients' expectations of surgery are gradually rising. Laparoscopic hernia repair is currently the best option for the treatment of inguinal hernia, but clinicians are not sure which of TAPP and TEP.

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METHODS

Participant or population: Adult patients with inguinal hernia.

Intervention: Laparoscopic total extraperitoneal (TEP) hernioplasty.

Comparator: laparoscopic transabdominal preperitoneal (TAPP) hernioplasty.

Study designs to be included: Published randomized controlled trials (RCT) meet the eligibility criteria.

Eligibility criteria: Inclusion criteria:1. The type of study must be a randomized controlled trial2. The study object must be an adult inguinal hernia patient3. Published full text that can be retrieved4. Comparative study on the clinical efficacy of laparoscopic transperitoneal

preperitoneal inguinal hernia repair (TAPP) and laparoscopic total extraperitoneal inguinal hernia repair (TEP)5. Follow up for a certain period after operationExclusion criteria:1.The subjects included recurrent, irreducible and strangulated inguinal hernia patients;2.The subjects had increased intra-abdominal pressure due to respiratory diseases or urinary diseases;3.Incomplete or vague data and unclear description; 4.Animal experiment;5.Robot assisted surgery;6.Repetitive literature.

Information sources: PubMed, Embase, VIP, CBM, CNKI,Wanfang and the Cochrane Library were searched.

Main outcome(s): ① operation time; ②Early pain time after operation; ③ Inguinal discomfort; ④haematoma; ⑤seroma ; ⑥Hospitalization time; ⑦ Incidence of postoperative chronic pain; ⑧ Postoperative recurrence rate .

Quality assessment / Risk of bias analysis: Cochrane Tool.

Strategy of data synthesis: RevMan 5.3 software was used for the meta-analysis. Statistics were analysed using relative risk (RR) and 95% confidence interval (CI) as indicators for dichotomous variables and mean difference (MD) and 95% confidence interval (CI) for continuous variables. Literature heterogeneity was qualitatively assessed by the Q-test and I2 test; when there was no significant heterogeneity among the results of each included study ($P > 0.1$, $I^2 < 50\%$), the fixed-effect model was used to combine and analyse the results of each study.

Subgroup analysis: We will consider subgroups such as samples.

Sensitivity analysis: We conduct sensitivity analysis by changing the inclusion criteria (especially controversial studies) and excluding low-quality studies.

Country(ies) involved: China.

Keywords: TEP,TAPP,Adult patients with inguinal hernia.

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