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## New trends in the minimally invasive repair of abdominal wall defects V.2

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**We use this protocol and it's working**

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## Disclaimer

Nothing to disclose

## Abstract

In the last years several authors have proposed different names to describe their minimally invasive approaches, other than the classic laparoscopic techniques like IPOM and IPOM plus, for the treatment of ventral hernias and diastasis recti.

This systematic review aims to classify and summarize the characteristics and outcomes of the new laparoendoscopic techniques for the repair of abdominal wall defects.

## Image Attribution

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## Guidelines

The PRISMA 2020 guidelines

## Before start

A preliminary research was performed for previous similar systematic review



## Methods

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- 1 A literature search was performed by two reviewers in December 2023 including articles from the 01<sup>st</sup> January 2013 to the 15<sup>th</sup> December 2023 and using the following databases:  
Scopus, MEDLINE/Pubmed, Cochrane Library, and Web of Science. The following Medical Subjects Heading (MeSH) terms were used: ((minimally invasive surgical procedures [MeSH Terms]) OR (laparoscopic surgery[MeSH Terms]) OR (endoscopic surgical procedure[MeSH Terms])) AND ((abdominal hernia[MeSH Terms]) OR (hernia, ventral[MeSH Terms]) OR (diastasis[MeSH Terms])).
- 2 "IPOM", "robotic", "IPOM+", "IPOM plus", "hiatal", "groin", "pediatric", and "TAPP" terms, and case reports, editorials, letters to the editor, article not in English and full text not available were excluded.
- 3 A manual search from references of other articles was performed. Additional research for existing reviews, meta-analysis and guidelines was also performed.
- 4 Studies about the extended-view totally extra-peritoneal (eTEP) technique were excluded.
- 5 The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) and MINORS guidelines (methodological index for non-randomized studies) scoring systems were used for the quality assessment of the studies included in this review. Each manuscript had a MINORS score assessed by two authors.
- 6 After selection, the following information were extracted from each article and reported in a database: bibliographic reference, publication year, technique name (when available), number of patients, sex, age (median and/or range), surgical indications, defect size (median and/or range), indications to surgery, surgical time (median and/or range), surgical access type, mesh type, mesh location, post-operative stay, follow-up time, complications, surgical site complications, seroma, recurrences.

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## Results

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- 7 The literature search retrieved 1755 results, of which 322 were duplicates and excluded from the analysis.

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- 8 After title evaluation, other 1348 articles were excluded. 4w
- 9 The abstracts of the remaining 85 articles were analyzed and other 23 studies were excluded because they were not related to the purposes of our review. 4w
- 10 Of the remaining 62 articles, 30 were about the eTEP technique and 5 were early experiences, so they were excluded according to the criteria of our review. 4w
- 11 Finally, 27 articles have been selected for our study. 4w

## Protocol references

- 1) Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. **BMJ 2021;372:n71. doi: 10.1136/bmj.n71**
- 2) Slim K, Nini E, Forestier D, Kwiatkowski F, Panis Y, Chipponi J. Methodological index for non-randomized studies (minors): development and validation of a new instrument. ANZ J Surg. 73(9):712-6. doi: 10.1046/j.1445-2197.2003.02748.x.