P130 HYBRID OPERATION TECHNIQUE FOR INCISIONAL HERNIA REPAIR, A SYSTEMATIC REVIEW AND META-ANALYSIS OF INTRA- AND POSTOPERATIVE COMPLICATIONS

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Aim: Incisional hernia (IH) occurs approximately in 15% of patients after midline surgery. Surgical treatment for IHs include a solely open or solely laparoscopic approach with mesh placement. Recently, hybrid (combined laparoscopic and open) approaches are being performed. This systematic review evaluates the perioperative complications of hybrid incisional hernia repair (HIHR).

Material and Methods: EMBASE, Medline via OvidSP, Web of Science, Cochrane and Google Scholar databases were searched. Studies providing data on intra- and postoperative complications in patients who underwent HIHR were included. Data on intra- and postoperative complications were extracted and meta-analyses were performed. Study quality was assessed with the Newcastle Ottowa Scale, ROBINS-I tool, and Cochrane risk of bias. PROSPERO registration: CRD42020175053.

Results: Results: Nine studies (n = 1596 patients) were included. Five studies compared intra-operative complications between HIHR and laparoscopic incisional hernia repair (LIHR) with a pooled incidence of 1.8% in HIHR group and 2.8% in LIHR group (p = 0.13). Comparison of postoperative prevalence of surgical site occurrences (SSOs) (24% versus 31%, p = 0.02) and surgical site occurrences requiring interventions (SSOPIs) (1.5% versus 4.1%, p < 0.01) were in favour of the HIHR group. Overall postoperative complications seemed to occur less frequent in the HIHR group, though no hard statements could be made due to the vast heterogeneity in reporting between studies.

Conclusions: Although the majority of studies were retrospective and included a small number of patients, HIHR led to less SSOs and SSOPIs compared to LIHR. This systematic review forms a strong invitation for more randomized controlled trials to confirm the benefits of this approach.