

## AB129. 88. The use of drains in avoiding seroma formation in ventral hernia repair and the alternatives available: a systematic review

Ronan Doherty, Cian Henry, Umar Khan, Pooja Buttan, Albert Yee, Yasir Bashir, Kevin Conlon

Professorial Surgical Unit, Department of Surgery, Trinity College Dublin, University of Dublin, Tallaght University Hospital, Dublin, Ireland

**Background:** Annually 350,000 ventral hernias are operated on worldwide, and their incidence is on the rise. While the complications of ventral hernia repair (VHR) are few, seroma formation remains a well-established feature. Traditionally, drains have been placed to prevent the accumulation of blood and serum in the post-operative period. Given the potential for drains to act as a conduit for post-surgical infection their requirement has been questioned. There is a renewed impetus in the literature to investigate the evidence supporting the use of drains in all aspects of surgical practice, including VHR.

**Methods:** A comprehensive database search was undertaken to identify the published literature comparing the incidence of seroma and infection in comparable groups that varied in drain placement or operative technique. The studies were screened using the preferred reporting items for systematic reviews and meta-analyses (PRISMA) protocol.

**Results:** The fixed effect method was used to assess risk ratios (RR). Drains tended to reduce seroma formation RR =0.64 (CI, 0.38–1.09) with P=0.10, while infection risk appeared unaffected using drains RR =1.03 (CI, 0.50–2.12) and P=0.95. Laparoscopic approaches tended to reduce the incidence of seroma RR =0.54 (CI, 0.19–1.57) with P=0.14, and infection risk RR =0.54 (CI, 0.19–1.57) with P=0.26. No comparisons however, were statistically significant.

**Conclusions:** There is insufficient evidence to decisively conclude if use of drain is beneficial or should be abandoned in the setting of VHR. Further research with adequately powered studies is necessary to better assess the utility of drains, as well as potential alternatives in preventing seroma formation.

**Keywords:** Abdominal hernia; drain; infection; seroma; ventral hernia

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