

AB134. Umbilical hernia repair: the fenestrated linea alba—time for surgeons to take note

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Background: Umbilical hernia repair is associated with recurrence in primary closure of 11.4% and 3.6% in mesh repair (Kaufmann, Halm *et al.* 2018). The reason for recurrence remains unclear and the concept of multiple defects in the linea alba (Moschowitz 1915, Sugrue 2010) may be a potential contributor.

Methods: A systematic review of all published English language articles in the last five years was undertaken at a University Hospital using electronic databases. The reproducible search strategy ‘Umbilical hernia’, ‘repair’ and ‘recurrence’ was used to include relevant papers and was registered with the International Prospective Register of Systematic Reviews. This study adhered to the preferred Reporting Items for Systematic Reviews and Meta-Analyses

statement. The Methodological index for non- randomised studies criteria were applied to all papers selected and those scoring less than ten for non-comparative and less than fourteen for comparative studies were excluded.

Results: Six hundred and forty-six papers were found on initial search and following exclusions and full text article review and grading, ten papers were included. Five papers implicate primary closure, size of defect and body mass index and a further three papers, the presence of concurrent hernias, smoking, diabetes and surgical site infection in recurrence following umbilical hernia repair. The presence of multiple linea alba defects as a contributor to recurrence was not reported in the literature.

Conclusions: This study identified a failure of scientific literature to report the presence of multiple defects in the linea alba. This is despite two papers describing their presence. Surgeons need to be aware and potentially alter their surgical approach accordingly. It is probable that recurrence is at least partly attributable to the presence of occult defects.

Keywords: Umbilical hernia; repair; recurrence; multiple defects

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