562 Midline Versus Off Midline Extraction Site in Laparoscopic Left Sided Colorectal Resections for Colorectal Malignancy: A Systematic Review and Meta-Analysis

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Method: To evaluate comparative outcomes of off-midline and midline extraction sites in laparoscopic left sided colorectal resections.

Method: A systematic search of electronic databases and bibliographic reference lists was conducted, and a combination of free text and controlled vocabulary search was adapted to thesaurus headings, search operators and limits in electronic databases were applied. Studies comparing the outcomes of Off Midline and Midline incisions for specimen extraction in laparoscopic left sided colorectal resections were included. Incisional hernias, surgical site infections, operative time, estimated blood loss, anastomotic leak and length of hospital stay were the evaluated outcome parameters.

Results: We identified 5 comparative studies reporting a total of 1187 patients comparing outcomes of off-midline (n=486) and midline (n=701) incisions for specimen extraction in laparoscopic left colorectal resections. The off-midline approach was associated with lower post operative surgical site infection (OR 0.71, P=0.68), anastomotic leak (OR 0.76, P=0.66), and incisional hernia (MD: 0.65, P=0.64) compared to midline approach, however it was not statistically significant. There was no significant difference in operative time (MD: 0.10, P=0.99), intra-operative blood loss (MD 2.31, P=0.91), and post-operative hospital stay (MD : 0.78, P=0.18) between the two groups.

Conclusions: Off-midline extraction site for left sided colorectal resections have no significant difference in rates of post operative surgical site infection and incisional hernias when compared to midline extraction site. No significant difference was found in operative time, intra-operative blood loss, anastomotic leak and post operative hospital stay in this study. Future higher-level research is required to further evaluate the clinical outcomes.