

PROPHYLACTIC CLIPPING TO PREVENT DELAYED COLONIC POST-POLYPECTOMY BLEEDING: META-ANALYSIS OF RANDOMIZED AND OBSERVATIONAL STUDIES

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Background: Delayed post-polypectomy bleeding (DPPB) is a commonly described adverse event following polypectomy. Prophylactic clipping may prevent DPPB in some patient subgroups. We performed a meta-analysis to assess both the efficacy and real-world effectiveness of prophylactic clipping.

Aims: We performed a meta-analysis to assess both the efficacy and real-world effectiveness of prophylactic clipping.

Methods: We performed a database search through March 2020 for clinical trials or observational studies assessing prophylactic clipping and DPPB. Pooled risk ratios (RR) were calculated using random effects models. Subgroup, sensitivity and meta-regression analyses were performed to elucidate clinical or methodological factors associated with effects on outcomes.

Results: A total of 2,771 citations were screened, with 11 randomized controlled trials (RCTs) and 9 observational studies included, representing 24,670 colonoscopies. DPPB occurred in 2.0% of patients overall. The pooled RR of DPPB was 0.47 (95% CI 0.29 – 0.77) from RCTs enrolling only patients with polyps \geq 20 mm. Remaining pooled RCT data did not demonstrate a benefit for clipping. The pooled RR of DPPB was 0.96 (95% CI 0.61 – 1.51) from observational studies including all polyp sizes. For patients with proximal polyps of any size, the RR was 0.73 (95% CI 0.33 - 1.62) from RCTs. Meta-regression confirmed that polyp size \geq 20 mm significantly influenced the effect of clipping on DPPB.

Conclusions: Pooled evidence demonstrates a benefit when clipping polyps measuring \geq 20 mm, especially in the proximal colon. In lower-risk subgroups, prophylactic clipping should not be performed.

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