

Bleeding Risk with Dual Antiplatelet Therapy and Gastrostomy Tube Placement: A Systematic Review and Network Meta-Analysis

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Background/Objective: Gastrostomy tube (G tube) is a commonly performed procedure for nutritional support. Current guidelines recommend discontinuation of dual antiplatelet therapy (DAPT) prior to G tube placement to reduce bleeding risk. We aim to compare bleeding risk in single, dual and no antiplatelet therapy during G tube placement.

Methods: The following databases were searched: PubMed, Embase, Cochrane, and Web of Sciences to include comparative studies evaluating single antiplatelet (aspirin, clopidogrel), dual antiplatelet (DAPT, aspirin and clopidogrel), and no antiplatelet therapy. Direct as well as network meta-analyses comparing these arms were performed using random effects model. Risk Differences (RD) with confidence intervals were calculated.

Results: A total of 12 studies with 8471 patients were included in the final analysis. On direct meta-analysis, there was no significant difference noted between DAPT compared to Aspirin (RD 0.001 95% CI -0.012–0.014, p = 0.87), Clopidogrel (RD 0.001 95% CI -0.009–0.010, p = 0.92) or no antiplatelet group (RD 0.007 95% CI -0.011–0.026, p = 0.44). These results were consistent on network meta-analysis and no difference was noted in bleeding rates when comparing DAPT with Aspirin (RD 0.001, 95% CI -0.007–0.01, p = 0.76), Clopidogrel (RD 0.001, 95% CI -0.01–0.011, p = 0.90) and no antiplatelet group (RD 0.002, 95% CI -0.007–0.012, p = 0.62).

Conclusion: There is no significant difference in bleeding risk between DAPT, single antiplatelet or no antiplatelet therapy. G tube placement can be safely performed while being on DAPT with no additional bleeding risk.