AB148. 43. Systematic review and meta-analysis of randomised controlled trials analysing the role of drains following infraperitoneal colorectal or coloanal anastomosis

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Background: Anastomotic dehiscence leading to pelvic sepsis after infra-peritoneal anastomosis is a significant challenge in colorectal surgery. The prophylactic use of pelvic drains to reduce the incidence of and improve the early diagnosis of anastomotic leakage remains a common surgical practice despite any strong evidence relating to its efficacy and safety. This systematic review assessed the efficacy and safety of prophylactic use of pelvic drains in infra-peritoneal anastomosis.

Methods: Electronic databases were searched for randomised controlled trials (RCTs) comparing prophylactic pelvic drainage with non-drainage following infra-peritoneal anastomoses formation in colorectal surgery. RCTs published in English between 1990 and 2018 were considered.

Results: Four RCTs describing outcomes in 1,122 patients were suitable for inclusion (n=567 in the drainage group; n=555 non-drainage group). A significantly lower anastomotic leak rate was not observed with prophylactic pelvic drainage [risk ratio (RR) 1.06; 95% CI: 0.72–1.56; P=0.77]. Furthermore, a reduction in wound infection rate (RR 1.08; 95% CI: 0.45–2.60; P=0.86), need for surgical re-intervention (RR 1.07; 95% CI: 0.52–2.21; P=0.84) or overall mortality (RR 0.83; 95% CI: 0.39–1.77; P=0.63) was not associated with prophylactic pelvic drainage. A significant reduction in hospital length of stay (LOS) was observed in those who did not receive a drain (WMD 0.98; 95% CI: 0.03–1.94; P≤0.04).

Conclusions: Prophylactic use of pelvic drains after infraperitoneal colorectal or coloanal anastomosis formation does not reduce anastomotic leak rate, surgical site infection, surgical re-intervention or overall mortality. Reduced length of stay was observed when drains were not used.

Keywords: Drains; anastomosis; colorectal; coloana; infraperitoneal

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