

AB061. Transversus abdominis plane block in laparoscopic bariatric surgery—a systematic review and meta-analysis of randomised controlled trials

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Background: Effective postoperative analgesia is paramount in the management of patients undergoing bariatric surgery, given their increased predisposition to systemic narcotic-induced respiratory depression. Transversus abdominis plane (TAP) block has shown promise in the enhanced recovery pathway for several abdominal procedures. We performed a systematic review and meta-analysis to compare the effectiveness of TAP block in laparoscopic bariatric surgery.

Methods: PubMed, EMBASE and Cochrane databases were searched for relevant articles from inception until November 2019. All trials that compared TAP blocks versus none in laparoscopic bariatric procedures were included. The primary outcome measure was narcotic consumption

at 24 hours postoperatively, while secondary outcomes included pain scores, time to ambulation, postoperative nausea and vomiting (PONV) and complication rates. Random effects models were used to calculate pooled effect size estimates.

Results: Seven randomised controlled trials were included capturing 617 patients. There was high statistical heterogeneity across studies. On random effects analysis, there were no significant differences in narcotic consumption (mean difference -18.4 mg, 95% CI: -38.7 to 1.91 , $P=0.08$), pain scores (mean difference -0.71 , 95% CI: -1.93 to 0.50 , $P=0.25$) or complications (OR = 0.67 , 95% CI: 0.11 to 4.23 , $P=0.67$) between TAP and no TAP groups. However, TAP was associated with significantly less time to ambulation (mean difference -2.22 hours, 95% CI: -3.89 to -0.56 , $P=0.009$), and PONV (OR = 0.13 , 95% CI: 0.05 to 0.35 , $P<0.0001$) rates.

Conclusions: TAP in laparoscopic bariatric surgery is associated with significantly less PONV and time to ambulation but similar narcotic usage, postoperative pain and complication rates, compared to no TAP.

Keywords: Bariatric; transversus; laparoscopic; block; pain; analgesia

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