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البحث الرابع

عنوان البحث باللغة الإنجليزية:

The Analgesic Efficacy of Ultrasound-Guided Bilateral Transversus Thoracic Muscle Plane Block After Open-Heart Surgeries: A Randomized Controlled Study.

ملخص البحث الرابع باللغة الإنجليزية:

Background: We aimed to evaluate the analgesic efficacy of ultrasound-guided bilateral transversus thoracic muscle plane block after open-heart surgeries.
Methods: Seventy patients aged above 18 years and scheduled for valve replacement or adult congenital via median sternotomy were enrolled in this study. Patients were divided into two groups, randomized by computer-generated random numbers: the block group, which had the ultrasound-guided bilateral transversus thoracic muscle plane block, and the control group, which had a sham block. The primary outcome was total fentanyl consumption in the first 24-hours. The secondary outcomes were pain score, time to the first analgesic request, time to extubation, ICU stays, and hospital stay.
Results: The total fentanyl consumption in the first 24 hours was significantly lower in the block group, with a mean difference of -158.286 (95% CI = (-179.271 to -137.300; p =<0.0001)). The time to the first analgesic request was statistically significantly shorter in the non-block group (median 3 hours) than the block group (median 14 hours). During the postoperative period (0.5–24 hours), at rest pain scores were 1.86 units lower in the block group (the estimate was -1.80, 95% CI = -2.14 to -1.45, t = -10.323 with p < 0.0001). Likewise, pain scores with cough were 3.29 units lower in the block group (the estimate was -3.29, 95% CI = -3.80 to -2.77, t = -12.703, p < 0.0001).
Conclusion: Bilateral transversus thoracic muscle plane block is a promising and effective technique in reducing opioid consumption and controlling post-sternotomy pain after open-heart surgery via median sternotomy.