

the role of dexmedetomidine as an adjuvant for high-thoracic erector spinae plane block for analgesia in shoulder arthroscopy

a randomized controlled study

Background

Management of postoperative pain after shoulder arthroscopy is an important issue. Dexmedetomidine, as an adjuvant, improves nerve block efficacy and decreases postoperative consumption of opioids. As a result, We designed this study to determine if adding dexmedetomidine to an erector spinae plane block (ESPB) that is guided by ultrasound (US) is beneficial for treating immediate postoperative pain following shoulder arthroscopy..

Methods:

This randomized controlled double-blind trial recruited 60 cases 18–65 years old of both sexes, American Society of Anesthesiologists (ASA) physical status I-II, scheduled for elective shoulder arthroscopy. Random allocation of 60 cases was done equally into two groups according to the solution injected in US-guided ESPB at T2 before general anesthetic induction. Group (ESPB): 20 ml 0.25% bupivacaine. Group (ESPB +DEX): 19 ml bupivacaine 0.25% +1 mL Dexmedetomidine 0.5 µg/kg. The primary outcome was The total rescue morphine consumption in the first 24 postoperative hours.

Results:

The mean intraoperative fentanyl consumption was significantly lower in the group (ESPB+DEX) compared to the group (ESPB) (82.86 ± 13.57 versus 100.74 ± 35.07), respectively, $P= 0.015$).

The median (IQR) time of the 1st analgesic request was significantly delayed in the group (ESPB + DEX) compared to group (ESPB) [18.5 (18.25–18.75) versus 12 (12–15.75), $P= 0.044$].

The number of cases that required morphine was significantly lower in the group (ESPB + DEX) than in the group (ESPB) ($P= 0.012$)

The median (IQR) time of the 1st 24 h was significantly lower in the group (ESPB + DEX) compared to the group (ESPB) [0 (0–0) versus 0 (0–3), ($P= 0.021$)]

Conclusions:

The dexmedetomidine as an adjuvant to bupivacaine in ESPB produced adequate analgesia by reducing the intraoperative and postoperative opioid requirements in shoulder arthroscopy.

نوع البحث:

بحث مشترك غير مشتق من رسالة علمية ولم يسبق تقييمه.

المشاركون في البحث حسب الترتيب:

أ.د.محمد احمد حامد، د.عمر سيد فرغلى، د. رنا احمد عبد الغفار، أ.د.محمد احمد موسي، د. محمد فؤاد الجيار.

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