

Administration of Pregabalin for Shoulder Arthroscopy

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Introduction. Shoulder surgery can be associated with severe postoperative pain and discomfort. Pregabalin used as a part of multimodal approach could improve pain relief effect after shoulder arthroscopy under general anaesthesia with interscalene block.

Aim, Materials and Methods. The main objective of the study was to find whether preoperative administration of Pregabalin could improve pain relief in early postoperative period.

Prospective observational study was conducted of 61 patients who underwent shoulder arthroscopy and received premedication either with Dormicum 7.5 mg (group D, n = 29) or with Dormicum 7.5 mg and Lyrica 150 mg (group DL, n = 29) 30 minutes before the surgery. All patients received standardised multimodal pain therapy with Paracetamole, Codeine, Arcoxia and Palexia after surgery. Pain was assessed with Visual Analog Scale (VAS), severe pain was defined if VAS was > 8 points. The primary outcome was appearance of severe pain (VAS > 8) in the first 24 hours after the surgery. Secondary outcomes included differences in opioid requirements, adverse effects and sleep patterns.

Results. After ethical approval, 61 patients with a mean age 50.7 ± 14 years were enrolled in the prospective study. Three patients were excluded due to inadequate interscalene block when pain was detected two hours after the surgery. Patients had shoulder arthroscopy (n = 26), arthroscopic rotator cuff repair (n = 29), arthroscopic stabilisation (n = 2) or arthroscopic biceps tenodesis (n = 1) under general anaesthesia with Phentaniil, Propofol, Tracrium and Sevoflurane combined with interscalene block. For the last *Sol. Ropivacaini* 0.75% - 20 ml and *Sol. Lidocaine* 2% - 5 ml was administered. Appearance of severe pain was detected less often in DL group compared to D group 3 (10%) vs. 9 (31%); p = 0.045 with an average onset of 280 ± 139 minutes after surgery. *Sol. Promedoli* 2% - 1 ml as rescue pain control drug more often was received in D group 8 (28%) vs. 2 (7%) in DL group; p = 0.03. Prolonged awakening after anaesthesia and drowsiness were more often observed in DL group, 9 ± 2.5 vs. 14 ± 2 min; p < 0.0001 and 3 (10%) vs. 14 (48%); p = 0.001, respectively.

Conclusions. Administration of Pregabalin before the shoulder arthroscopy may decrease the incidence of severe pain and reduce the usage of opioids and parallelly intensify sleep patterns such as awakening after anaesthesia and drowsiness in early postoperative period.