EARLY EXTUBATION OF MYASTHENIC PATIENTS AFTER THYMECTOMY: KETOROLAC VERSUS THORACIC EPIDURAL ANAESTHESIA WITHOUT MUSCLE RELAXANTS

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Background: To test the hypothesis that ketorolac or thoracic epidural anaesthesia (TEA) with the non-muscle relaxant anaesthetic technique (NMRT) improve postoperative pain control, pulmonary functions and allow early extubation after thymectomy in patients with myasthenia gravis (MG).

Methods: In this prospective randomized blinded controlled study of trans-sternal thymectomy, 75 MG patients were randomly assigned to placebo group (n=25) received normal saline, ketorolac group (n=25) received i.v ketorolac 15 mg bolus, followed by an infusion of 7.5 mg.h⁻¹, and TEA group (n=25) received 10 ml of bupivacaine 0.5%, followed by an infusion of 10 ml.h⁻¹ of bupivacaine 0.125%. Times to emergence from anaesthesia and extubation, the need for re-intubation, the postoperative respiratory rate (R.R), and pain VAS, at rest and on cough, the analgesic consumption, peak expiratory flow rate (PEFR) and ICU length of stay were recorded.

Results: The intra-operative H.R, MAP, and supplementary doses of fentanyl were significantly lower in the ketorolac and TEA groups compared to the placebo group. The patients in the ketorolac and the TEA groups had significantly shorter emergence time, extubation time [12±3.50 and 11±3.84, respectively, vs. 27±14.34 minutes, P<0.001], and ICU stay, with lower R.R and better pain control, at rest and on cough, for the first 4 h after surgery, and higher PEFR values at 1 and 6 h, than the placebo group.

Conclusions: The combined ketorolac or TEA with NMRT provided excellent intra-operative anaesthesia together with postoperative analgesia, and allowed early extubation after thymectomy in MG patients.