CO 4 - ANAESTHETIC APPROACH OF A MYASTHENIA GRAVIS AND POLYTRAUMA PATIENT UNDERGOING SPINOPELVIC SURGERY

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Background:

Myasthenia gravis (MG) is a neuromuscular autoimmune disease that raises anaesthetic concerns, not only regarding neuromuscular blocking agents but also respiratory impairment and potential need for postoperative ventilation, mainly related to: duration of MG >6yr, pyridostigmine therapy >750 mg/d, preoperative vital capacity <2,9L, coexisting chronic respiratory disease, blood loss >1L and major cavity surgeries. MG places patients undergoing surgery at greater risk of adverse outcomes and alternatives to general anaesthesia (GA) and opioids may be encouraged.

Prone spinal-pelvic surgery is customarily performed under GA. We describe the use of a combined spinal-epidural technique (CSE) to successfully circumvent post-operative pulmonary events in a patient with myasthenia gravis and important polytrauma.

Case Report:

A 45-year-old woman, with MG (thymectomy at age 14 and under pyridostigmine therapy 60mg bid), hypertension, chronic obstructive pulmonary disease, alcoholism and chronic renal failure presented to the operating room after a stay in intensive care unit, in need for spinopelvic reduction and fixation due to acetabular and sacroiliac fracture and diastasis in the context of a car accident. At admission, she also had multiple rib and clavicular fractures, lung contusion, hemopneumothorax, T12 vertebrae fracture, rhabdomyolysis and hyperlactacidemia.

A CSE at L3-L4 level (bupivacaine 15 mg and sufentanil 0,002mg in spinal) was performed. IV infusions of dexmedetomidine (0,7-1 mcg/kg/h) and propofol (target-controlled infusion titrated to clinical response) were maintained during surgery for patient comfort. Ropivacaine 0,75% was administered epidurally as needed during surgery (twice, 5 ml each).

Patient underwent uneventful 5-hour intervention in prone position. She was comfortable during and after the procedure and safely discharged from anaesthesia care. The epidural catheter was left in place for 2 days for pain management. No postoperative complications were observed.

Discussion and learning points:

Regional anaesthetic strategies appear to be useful alternatives for spinopelvic surgery in patients with MG and important pulmonary impairment, namely thoracic trauma, who are at substantial risk for postoperative complications, avoiding further respiratory compromise in these patients.

Amide local anesthetics may be preferred as esters are metabolized by pseudocolinesterases, which can be problematic in patients taking anticholinesterases.

References:

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