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Case Report Open Acces

Background

MG is a chronic autoimmune disease that targets the neuromuscular junction, leading to a decreased number of cholinergic receptors available for interaction with AcetylCholine (ACh). Clinically the condition is characterized by DV\PPHWULF DQG ÀXFWXDWLQJ ZHDNQHVV RI WKH VNHOHWDO PXVFOHV WKDW ZR sudden respiratory and oropharyngeal failure (myasthenic crisis) that can occur in the perioperative period. The therapeutic options are [1,2]:

‡ $FHW\O&KROLQHVWHUDVH LQKLELWRUV $&KH, H J S\ULGRVWLJPLQH DQG QHRVWLJPLQH WR interaction with its receptors by prolonging the biological half-life of the neurotransmitter

‡ ,PPXQRVXSSUHVVLYH GUXJV

‡ 3ODVPDSKHUHVLV

‡ 7K\PHFWRP\

Responsiveness of MG patients to muscle relaxant drugs is unpredictable. Suxamethonium chloride (succinylcholine) can be used for rapid sequence induction and intubation (RSI) but higher than normal doses are required (1.5-2 mg/Kg). Because of their interaction with anticholinergic drugs succinylcholine and mivacurium often FDXVH SURORQJHG VNHOHWDO PXVFOH UHOD[DWLRQ &DXWLRQ LV DGYLVDEOH L (NDMRs) because of the unpredictability of the effects and irregularities of the resulting hyposthenia. This in turn may cause muscular function monitoring through peripheral neurostimulation to be unreliable and NDMRs have to be administered in small successive doses until the desired effect is achieved. The interactions of NDMRs with DQWLFKROLQHUJLF GUXJV WDNHQ E\ WKH SDWLHQW DQG WKH LQKLELWRUV RI WH WR D SURORQJHG VNHOHWDO PXVFOH UHOD[DWLRQ WKHUHIRUH WKH SDWLHQW K post-operative mechanical breathing aiding [3]. It appears therefore clear that the anesthesiological management of myasthenic patients remains a challenge.

Case Report

A male patient (41 yo, h27cm, w82 Kg) was elected for a Laparoscopic Cholecystectomy procedure (LC), following diagnosis of lithiasic cholecystitis. e patient's clinical history reported an Endoscopic Retrograde CholangioPancreatography (ERCP) executed to remove a calculus from the biliary tract. From the anamnesis emerged that the patient was a ected by MG, diagnosed 2 years before with exquisitely ocular symptoms (diplopia, presently absent) and that a er chronic cortisonic treatment (suspended) the patient was being treated with pyridostigmine (60 mg every 4 h per os, without night administration), the last dose administered on the day prior the operation. Pre-operative anesthesiological treatment was omitted.

Neurological counsel framed the absence of symptoms and thymoma and ensured the e ectiveness of the pharmacological treatment and the routine pre-operative exams evidenced no notable data, except for the expected cholestasis signs. Combination antibiotic therapy with piperacillin/tazobactam [4] was established. e anesthesiological examination reported an ASA (American Society of Anaesthesiologists) risk score of 2, relative to a generalized mild to moderate pathological condition.

A er pre-oxygenation and administration of sufentanil (15 µg) and 1.25 mg of droperidol (antiemetic) [3] narcosis was induced through Propofol (200 mg) and, prior veri cation of the possibility to ventilate the patient with a face mask, 20mg of rocuronuim (corresponding to the ED95, dose responsiveness 95%) were infused. Oro-tracheal

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Discussion

Following is described what appears to be one of the few cases of a myasthenic patient treated with sugammadex to antagonize a rocuronium-induced neuromuscular blockade. Traditional antagonists act by inhibiting Acetylcholin Esterase (AChE) activity, enormously increasing the quantity of ACh available for interaction with the cholinergic receptors in the neuromuscular junction. is in turn leads

13. 9DQ =XQGHUW $$ 6WXOWLHQV * -DNLPRYLF] -- et al. (2007) Laparoscopic cholecystectomy under segmental thoracic spinal anaesthesia: a feasibility study. Br J Anaesth 98: 682-686.

14. 3HXNNVHN Y ... .R]DOWDQ 8 'DJODU * 3DOD < cholecystectomy under spinal anesthesia. Am J Surg 195: 533-536.