

## 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 sudden respiratory and oropharyngeal failure (myasthenic crisis) that can occur in the perioperative period. The therapeutic options are [1,2]:

- ‡ \$ FHW\O&KROLQKLVFWBMM \$&K(, H J S\ULGRVWLJPLQH DQG QHRVWLJPLQH WR interaction with its receptors by prolonging the biological half-life of the neurotransmitter
- ‡ ,PPXQRVXSSUHVVLVYH 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 (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 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. The 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 affected by MG, diagnosed 2 years before with exquisitely ocular symptoms (diplopia, presently absent) and that after 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 effectiveness 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. Anesthesiological examination reported an ASA (American Society of Anaesthesiologists) risk score of 2, relative to a generalized mild to moderate pathological condition.

After 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 verification of the possibility to ventilate the patient with a face mask, 20mg of rocuronium (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 =XQG HUU \$\$ 6WXOWLHQV \* -DNLPRYLF] -- 143 HXINIVHNYDQ \$NHUW+\$P \*R]DWDQ 8 'DJODU \* 3DOD <  
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