Suxamethonium chloride

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Masseter muscle rigidity: case report

A 36-year-old man developed masseter muscle rigidity after receiving suxamethonium chloride for anaesthesia induction.

The man was scheduled for surgery to repair an epigastric hernia. He was premedicated with midazolam, tramadol and glycopyrrolate. Rapid sequence induction was then conducted, using thiopental sodium and IV suxamethonium chloride 100mg. Laryngoscopy was attempted after 1 minute, but his teeth were clenched tightly and his mouth could not be opened to introduce the tip of the laryngoscope blade.

The man was continued on mask ventilation with his oxygen saturation maintained at 100%, in view of the masseter muscle spasm. Laryngoscopy was attempted again after a few moments, but failed again, due to severe masseter muscle rigidity. However, he resumed spontaneous respiratory effort after 5 minutes, and a bolus dose of propofol was administered. His jaw seemed relatively relaxed at this point, and laryngoscopy was performed successfully. He was intubated, given atracurium besilate, and started on intermittent positive pressure ventilation. Due to concern for malignant hyperthermia, his temperature was monitored and he was catheterised to watch the colour of his urine. The procedure was completed, and he was successfully extubated. He was retained in the operating theatre for 1 hour under observation. His jaw was totally relaxed after 1 hour, with his mouth opening returned to baseline, which confirmed the diagnosis of suxamethonium chloride-induced masseter muscle rigidity. Tests showed elevated serum potassium levels and a slight rise in serum CPK. He was transferred to the ICU to be monitored for malignant hyperthermia. However, his postoperative course remained uneventful, and he was discharged on the third postoperative day.

Author comment: "Based on clinical and laboratory findings the case was diagnosed as [suxamethonium chloride] induced isolated [masseter muscle rigidity]".

Sharma M, et al. Succinylcholine induced masseter muscle rigidity: An isolated event. Anaesthesia, Pain and Intensive Care 17: 174-178, No. 2, May-Aug 2013 - India 803095559