AB214. 232. A case of perioperative rhabdomyolysis under general anaesthesia—possible causes, management & prevention

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Background: We present the case of a 35-year-old man who underwent right-sided completion thyroidectomy. He is a muscular man as a result of his job at a printing works.
Methods: During surgery, the patient's head was placed on a head-ring, the neck was extended and rotated to the left, and a roll was used to elevate the shoulders. His arms were abducted and wrapped, and this position was maintained for the duration of the 5-hour procedure.
Results: On emergence from anaesthesia, he complained of shoulder pain and an inability to lift his arms. Differential diagnosis included neuropraxia brachial plexus injury and rhabdomyolysis. Neuropraxic injury was ruled out due to non-radicular distribution. Creatine kinase was 7,000 IU/L (meeting diagnostic criteria for bilateral deltoid rhabdomyolysis). This may have been caused by capillary ischaemia of the deltoid muscles during surgery and subsequent reperfusion injury. The patient's symptoms resolved over a 24-hour period with conservative management.
Conclusions: Deltoid rhabdomyolysis has previously been reported following shoulder arthroscopy and intramuscular injections. Most reported cases of rhabdomyolysis and compartment syndrome due to patient positioning relate to longer procedures in the lateral or lithotomy position. Medical practitioners are commonly aware of the risk of nerve injury associated with patient positioning during surgery, but we rarely consider the possibility of ischaemic compression of muscle compartments and subsequent rhabdomyolysis. This case highlights the need for vigilance during patient positioning and the advantage of using armboards for the muscular patient. Promoting awareness is essential for prevention of this serious cause of perioperative morbidity.
Keywords: Rhabdomyolysis; perioperative; positioning

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