Anesthetic management of a pregnant female posted for caesarean section with biopsy proven polymyositis

Sir,

Polymyositis is a rare inflammatory myopathy characterized by symmetric proximal muscle weakness, increased serum skeletal muscle enzymes and abnormal electromyography (EMG). Though polymyositis is not common in pregnancy, however, maternal hormonal changes may lead to the development or exacerbation of the disease during pregnancy and both the mother and the baby are under high risk.[1] The major concerns for the anesthesiologist are aspiration pneumonitis, delayed recovery from muscle relaxants, cardiomyopathy with arrhythmias and heart failure, pituitary adrenal axis suppression due to chronic steroid intake and hyperkalemia. We hereby present case of a 21-year-old female with biopsy proven polymyositis posted for emergency caesarean section because of fetal distress.

A 21-year-old primigravida was posted for elective caesarean section because of anticipating difficult vaginal delivery in view of the disease at 37 weeks of gestation. There was no family history of polymyositis. On general physical examination, blood pressure was 124/72 mm Hg and pulse was 90/min. Cardiovascular and respiratory systems were normal. Neurological examination revealed a muscle power of 4/5 in most proximal muscle group, compared to distal muscle groups (5/5). Blood biochemistry revealed creatine kinase levels 526 U/L (*n* <167 U/L). EMG showed myopathic pattern. ECG and echo were normal. She was on the tablet prednisolone 50 mg once a day. Because of fetal distress the obstetrician planned an emergency caesarean section. She was premedicated with metoclopramide 10 mg and ranitidine 50 mg intravenous (iv). Subarachnoid block was given in L3-L4 interspace using 1.8 ml of 0.5% hyperbaric bupivacaine. Adequate sensory block was achieved up to T4. A female baby weighing 2 kg was delivered with APGAR score of 7 and 9 at 5 and 10 min respectively. She had one episode of hypotension, which was corrected by mephentermine 3 mg iv. Postoperative course was uneventful. The patient was continued on oral prednisolone in the postoperative period.

Patients with polymyositis are at increased risk of pulmonary aspiration. Further, there are other implications of general anesthesia in these patients. Volatile anesthetic agents may not only serve as a trigger of malignant hyperthermia but also potentiate the effects of muscle relaxants. It is recommended that these agents should be avoided in these patients more so with raised plasma creatine phosphokinase levels. These patients are supposed to be sensitive to nondepolarizing muscle relaxants, and use of their antagonist drugs may cause muscle weakness and dysrhyhmias.[2] Vecuronium and pancuronium are associated with prolonged neuromuscular paralysis though atracurium has been implemented as a safe drug under neuromuscular monitoring. Neuromuscular monitoring is suggested in these patients due to lack of standard recommendations regarding to the application of nondepolarizing muscle relaxants.[3,4] Succinylcholine should be avoided as it might trigger hyperthermia and may lead to hyperkalemia.[5]

We used regional anesthesia considering all these implications of general anesthesia and wish to highlight that regional anesthesia should be used in these patients, whenever possible.

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