variables and increasing the bolus dose in the parturient, they do not mention any adverse effects, maternal or fetal. Unfortunately, we did not have access to their anecdotal experience to guide our management of this patient. Therefore, we encourage Drs. Gavelin and Janzen to publish their data so that the technique of iv PCA fentanyl administration for the parturient can be improved.

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Obstetric anaesthesia and spinal cord injury

To the Editor:

We enjoyed reading the review by Crosby *et al.*¹ on the management of obstetrical patients with spinal cord injuries. These authors provided a complete analysis of the pathophysiology and risks of these patients during labour and delivery, with emphasis on the prevention and treatment of autonomic hyperreflexia. However, there was no discussion of the potential airway management problems in these patients. We recently cared for a woman during labour and delivery with Kugelberg-Welander disease, a form of spinal muscle atrophy. Although not a spinal cord injury, she suffered from progressive spinal cord weakness and deterioration, and in all respects had the same implications for anaesthetic management, except for the potential for autonomic hyperreflexia.

We were asked to provide anaesthesia for primary Caesarean section for this 34-yr-old, G₁P₀, hispanic female who presented at 37 wk gestation in active labour. She had a history of progressive spinal muscle atrophy since birth. She had several hospital admissions during her pregnancy for treatment of pneumonia. Her past surgical history included placement of Harrington rods (cervical through lumbar) and cholecystectomy under general anaesthesia without complication. She suffered frequent bouts of asthma. Her medications included penicillin, iron, nasal cannula oxygen prn, and inhaled albuterol prn. Pulmonary function tests five months earlier revealed FVC 1.03 L (31% predicted) and a FEV₁ 0.89 L (34% predicted). Vaginal delivery was considered not to be possible, because of cephalopelvic disproportion, and her weak abdominal and pelvic musculature.

On physical examination, the patient was unable to lie supine and there was severe limitation of neck movement, confined to the neutral position. Her tongue was large and the uvula could not be visualized.

The patient was premedicated with intravenous metaclopramide 10 mg, and 30 ml of oral sodium citrate solution. Nasotracheal intubation was preferred, after topical anaesthesia with the help of a flexible fiberoptic endoscope. General anaesthesia was induced with thiopentone and maintained with isoflurane, and a healthy male infant was delivered uneventfully. At the completion of surgery, the patient was transferred to the surgical intensive care unit. She received positive-pressure ventilation, optimization of her bronchodilators and pulmonary toilet, and the trachea was extubated without difficulty the following day. She was discharged home one week later.

We were faced with the problem of providing anaesthesia for this woman with marginal pulmonary reserve, who could not lie supine, nor move her neck from the neutral position. Epidural anaesthesia was considered but rejected because of her previous back surgery. Spinal anaesthesia was undesirable due to lack of precise controllability. Either may have exacerbated respiratory muscle weakness.

Our case illustrates the difficulties anaesthetists may encounter when managing the airway of spinal cord-injured obstetric patients. The problems are considerable and should be addressed prospectively. After considering the various methods for anaesthesia, the safest, most conservative approach should be utilized.

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Malignant hyperthermia susceptibility in patients with Duchenne's muscular dystrophy

To the Editor:

Duchenne's muscular dystrophy (DMD) is a severe and progressive form of myopathy that is transmitted by an X-linked recessive gene with symptoms becoming apparent in males between the ages of two and six years. There are conflicting reports regarding the susceptibility of patients