speed of software running on the PDA and it negates the need for synchronization. Future studies will assess the utility of wireless technology and portable computers at the point-of-care.

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Epidural anesthesia in a patient with hyperkalemic periodic paralysis undergoing orthopedic surgery

To the Editor:

Hyperkalemic periodic paralysis (HPP) is a familial abnormality in membrane electrolyte conductance leading to episodes of flaccid weakness in context with shifts in plasma potassium levels. During the attacks plasma potassium is elevated to upper normal levels or above (> 4.5 $mEq \cdot L^{-1}$). Some patients show slight signs of myotonia between and at the beginning of attacks, others display paramyotonia, while in a third category myotonic signs are absent.

A 52-yr-old man with a medical history significant for familial HPP was admitted to the hospital for right hip core decompression. His symptoms of HPP were characterized by two to three attacks/week, lasting one to two hours, and involved his trunk and lower extremities.

On admission, the patient experienced an attack of HPP with muscle weakness and light respiratory distress. Plasma potassium level at this time was 3.4 $mEq \cdot L^{-1}$, the electrocardiogram was normal. The patient was hydrated with 5% glucose in water. His SpO_2 on 3 $L \cdot min^{-1}$ of oxygen was stable at 98%. Blood pressure, heart rate and rhythm remained stable. The plasma potassium level determined throughout and after surgery ranged between 3.3 to 3.8 $mEq \cdot L^{-1}$.

For his surgery, the patient received an epidural anesthetic with 8 mL of lidocaine 2% with epinephrine and 5 mL of levobupivacaine 0.5%. Blood pressure measurements, heart rate and rhythm were stable throughout the procedure. The patient had an overall normal postoperative recovery after epidural anesthesia and his muscle strength returned to baseline during his postanesthesia care unit stay. Until his discharge from hospital, no further episode of HPP occurred.

Overnight fasting, a precipitating factor of HPP, might have contributed to the muscle weakness this patient presented preoperatively. Besides hunger, rest after exercise, cold, infection, and anesthesia have been reported to elicit episodes of HPP. A first report in 1959[1] showed that members of three families developed transient paralysis of two to five hours duration after general anesthesia. Recently, a patient with HPP successfully received hyperbaric bupivacaine 0.75% for spinal anesthesia.[2] Similarly, the epidural anesthetic with a lidocaine/levobupivacaine mixture in the present patient provided good conditions perioperatively.

In the case here presented, epidural anesthesia was an appropriate anesthetic technique. It provided stable plasma potassium both during surgery and in the immediate postoperative period.

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