

Meralgia paresthetica after total hip arthroplasty in supine position

Sir,

A 62-year-old woman was scheduled for elective total hip arthroplasty of right hip joint via minimally invasive techniques of an anterolateral modification of the Watson-Jones approach. She had body mass index (BMI) of 32.7 kg/m² and history of hypertension since last 15 years, treated with tab. Hydrochlorthiazide 25 mg OD. Pre-anesthetic examination was within normal limits with unremarkable airway, chest, and cardiac findings. On the day of surgery, she was shifted to the preoperative room, and monitoring of ECG, pulse oximetry, and blood pressure was started. The anesthetic plan of performing the procedure under spinal anesthesia was made. Patient was administered O₂ (4 L/min) via ventimask, and pre-medication administered was inj. Ranitidine 50 mg IV and inj. Metoclopramide 10 mg IV. A spinal needle was placed via mid-line approach, in L4–5 interspace with the patient in sitting position and a

bolus of 3 ml of 0.5% bupivacaine with fentanyl 2 µg/ml was administered. Upper level of analgesia at the T8 segment was achieved bilaterally. After 3 h of uneventful surgery, in supine position, she was transferred to the post anesthesia care unit. Two hours into postoperative period, the patient complained of unpleasant paresthesia and a burning sensation over the anterolateral left thigh, which progressed to stinging pain sensation in the affected area radiating to groin. Patient was immediately administered inj. Diclofenac 75 mg IM. Neurological examination revealed pain on palpation with no motor weakness of the right anterior thigh. X-ray of the pelvis revealed no abnormality. The electromyography study, done the following day, revealed no reflex or motor deficit indicative of the involvement of other nerves. Magnetic resonance imaging (MRI), done to exclude soft tissue injury, was inconclusive. She was diagnosed as having meralgia paresthetica (MP) and was prescribed

tab. ibuprofen 400 mg TDS, tab. pregabalin 100 mg TDS, and tab. vitamin B6 100 mg orally BD after consultation with neurologist.

MP is an entrapment mononeuropathy often caused by compression of the lateral femoral cutaneous nerve (LFCN), as it travels along the posterolateral aspect of the psoas major muscle, crossing between the anterior superior iliac spine (ASIS) and the inguinal ligament, before entering the thigh.^[1] It is frequently related to iliac bone graft harvesting, but MP can occur *de novo* as a transient compression neuropathy and only a few cases are reported in the literature related to prone and lateral decubitus position during surgery.^[2] It was possibly caused by the pelvic bolster or support placed on the left side during surgery in supine position to avoid movement on the operating table. To our knowledge, there are no reported cases in supine position.^[3] Diagnosis of MP is based on an appropriate clinical examination, and the symptoms range from tingling and numbness along with burning pain in or on the surface of the outer part of thigh to dull pain in groin area or across buttocks.^[4] These symptoms commonly occur only on one side of the body and may intensify after walking or standing. It was important to exclude a neurological complication caused by spinal anesthesia, which often manifests itself as a radiculopathy, which follows the dermatomal distribution of the affected nerve root with sensory disturbance, paresis or plegia, and hypo- or areflexia.^[5] Furthermore, the surgical procedure could not be the cause because the affected side was opposite to the one operated on. The condition is usually self-limiting and does not require any specific treatment. Patients and physicians may misunderstand the persistence of lower extremity symptoms in the early postoperative period to be a reflection of surgical sequelae or anesthetic complication. Furthermore, it is associated with restriction of daily living and may cause psychological trauma to the patient.

The position-related MP is not uncommon and the anesthesiologist should be aware of its existence. Careful symmetrical positioning, with correct position of points of support and appropriate size cushioning pads, is required to avoid pressure over the ASIS intraoperatively. An exhaustive clinical and neurological

examination is important to exclude any neurological complications due to regional anesthesia or the surgery performed. As soon as MP is suspected, it can be treated with medication, physiotherapy, local steroid/anesthetic injection, or, in refractory cases, nerve decompression surgery. Patient should be adequately counseled, reassured, and explained about this phenomenon.

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