

Femoral neuropathy caused by hyperlordotic positioning

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To the Editor:

The most common causes of iatrogenic femoral nerve injuries are operative abdominopelvic procedures [1]. However, the positioning of a patient can induce femoral neuropathy as well [2]. We report the case of a 32-year-old man (height 192 cm, weight 110 kg) who underwent general anesthesia for prolonged dental surgery. The operation was carried out in a supine position with the pelvis elevated above the head and feet (Supplementary Fig. 1). This position was requested by the surgeon to improve surgical exposure and his field of view. Total time of anesthesia was 5 h 15 min. After the operation the patient complained about weakness in the legs. Examination revealed grade 4/5 Medical Research Council (mrc) weakness in the hip flexors and grade 3/5 mrc weakness in the knee extensors with bilateral patellar areflexia. Sensation to touch over the anteromedial thighs was diminished. Needle electromyography showed reduced recruitment of motor unit potentials in both mm. rectus femoris. A magnetic resonance imaging (MRI) study showed edema of both iliac muscles (Supplementary Fig. 2). At 3 months, follow-up examination showed left hip flexion 4/5 and left knee extension 4/5 mrc

weakness. The femoral nerve descends through the psoas muscle and courses along the groove between the psoas and the iliac muscle. Because it leaves the pelvis under the inguinal ligament, hyperlordotic positioning and hyperextension of the thighs can lead to angulation and prolonged strain on the nerve. We assume that the degree of the angle between legs and upper body as well as the length of time of a hyperlordotic position increased the risk of affecting the femoral nerve. The heavy build of the patient probably added to this effect.

Conflict of interest None.

References

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