Letter to Editor

Immediate bilateral peroneal nerve palsy in a healthy null parturient after elective cesarean section

Dear Editor

Lower leg neuropathy is a possible complication after childbirth, with an incidence around 0.92%.1 Peroneal nerve palsy is a kind of neuropathy and results in dropping foot, with sensation abnormality in the dorsal foot and anterolateral aspect of the lower leg.2 Bilateral peroneal nerve palsy after child-birth has rarely been reported.3 We encountered a 37-year-old female, 163 cm in height, 65 kg in weight who was a null parturient (gravida 1, para 0). Elective cesarean section was arranged due to the malposition of the fetus. During the regular prenatal examinations, no specific systemic disease was noted including neurologic system disease. All preoperative blood examination data were within normal limitations. Cesarean section was performed uneventfully under spinal anesthesia. 0.5% Marcaine 2.5 ml was injected into the spinal sac through the 4th to 5th lumbar intervertebral space. No obvious uncomfortable sensation was mentioned by the parturient during the advancement of the spinal needle. The patient was sent back to the ordinary ward for further care after the operation for 2 h.

3 h after the injection of the medication for spinal anesthesia, the patient started to regain sensation in the lower trunk. Tingling and numbness was noted in the whole of the right foot and the left lateral foot area. Such sensation in the right foot was more severe than on the left side. No obvious muscle weakness was mentioned in bilateral leg. Owing to persistent numbness and tingling sensation, the patient had difficulty walking. The neurologist was consulted immediately and ankle jerk was found diminished with hyperalgesia present especially on the right side. Besides, muscle power, knee jerk, straight leg test were all within normal range. Nerve conduction velocity (NCV) test was arranged the next day. The tingling and numbness in the right foot persisted, but had improved a lot on the left side by the next day. The NCV test reported no pick-up of F-wave in the right peroneal nerve. This result was compatible with right peroneal nerve palsy or 5th lumbar nerve radiculopathy. Left foot abnormal sensation was fully recovered by the 3rd day and the right side fully recovered two weeks after the operation.

Neurologic complications associated with labor and delivery may be intrinsic to the labor and delivery process, or may result from obstetric or anesthetic intervention. The incidence of neurologic complications after central nerve blockade is <4:10,000 (0.04%).4 The incidence of obstetric palsy is much higher than the incidence of neurologic injury directly attributable to neuraxial anesthesia.5

Bilateral peroneal nerve palsy has rarely been reported after child-birth. The main cause of peroneal nerve palsy is due to external compression of the superficial peroneal nerve when it travels across the fibular head. Prolonged and excessive pressure around the knee by assistants is the most likely etiology.5

Bilateral lower limb sensation or muscle power impairment after the operation under spinal anesthesia implies spinal cord injury or bilateral peripheral neuropathy. A neurologist should be consulted for further neurologic examinations and image or other examinations arranged if needed.

Conflicts of interest

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References


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