신경근육재활 및 전기진단

게시일시 및 장소 : 10 월 18 일(금) 13:15-18:00 Room G(3F)

질의응답 일시 및 장소 : 10 월 18 일(금) 15:45-16:30 Room G(3F)

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Sciatic neuropathy after normal vaginal delivery: A case report

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Objective

Postpartum neuropathies of the lower extremity are possible complications after delivery and the incidence estimated at 1%. There have been a few case reports about sciatic neuropathy after caesarean section. However, a sciatic neuropathy after normal vaginal delivery has not been reported to date.

Methods

A 30-year-old woman visited our department with a chief complaint of left lower extremity weakness after normal vaginal delivery (at gestational age of 38+5 weeks) one month ago. The delivery took place under spinal anesthesia for about 6 hours. There was no dystocia and perinatal problems. She was primiparous and had medical history of gestational diabetes. Physical examination revealed a lower extremity weakness (MRC grade III of left ankle plantar flexor and a paresthesia at left posterior calf and sole. Magnetic resonance imaging (Figure 1), nerve conduction studies (Table 1), and electromyography (Table 2) were conducted. Finally, the patient was diagnosed as a left sciatic neuropathy at proximal to the branch to the biceps femoris.

Results

Her motor weakness and paresthesia were almost completely resolved spontaneously after 3 months. In addition, follow-up nerve conduction studies and electromyography showed nearly complete recovery state of left sciatic neuropathy (Table 1 and 2).

Conclusion

Sciatic neuropathy can occur after normal vaginal delivery even without dystocia and perinatal problems, which showed good prognosis.

Table1. Results of sensory and motor nerve conduction study

Sensory nerve conduction study		Initial 6 weeks after onset		Follow-up 19 weeks after onset	
Nerve	Stimulation site	Latency (ms)	Amplitude (μV)	Latency (ms)	Amplitude (μV)
Rt. superficial peroneal	Lateral Leg	2.66	22.7	2.24	12.9
Lt. superficial peroneal	Lateral Leg	2.45	20.8	2.4	11.5
Rt. Sural	Calf	2.66	32.1	1.56	23.2
Lt. Sural	Calf	2.5	17.7	1.88	20.2

Motor nerve conduction study		Initial 6 weeks after onset			Follow-up 19 weeks after onset		
Nerve (recorded muscle)	Stimulation site	Latency (ms)	Amplitude (mV)	Conduction velocity (m/s)	Latency (ms)	Amplitude (mV)	Conduction velocity (m/s)
Rt. common peroneal	Ankle	3.28	6.1		4.17	3.9	
(extensor digitorum brevis)	Fibular Head	10.1	5.5	46.9	10.78	3.7	52.9
Lt. common peroneal	Ankle	3.44	3		3.65	3.1	
(extensor digitorum brevis)	Fibular Head	10.52	2.8	46.6	10.16	2.4	53.8
Rt. tibial	Ankle	3.44	24.9		3.8	11.3	
(abductor hallucis)	Post. knee	11.93	23.2	45.9	11.82	8.5	48.6
Lt. tibial	Ankle	2.81	22.7		4.43	11.9	
(abductor hallucis)	Post. knee	11.67	16	42.9	11.67	9.1	53.9

Table 2. Results of needle electromyography, H reflex, and F wave. Abbreviations; Fib, fibrillation; PSW, positive sharp waves; MUAP, motor unit action potential; Interf P, interference pattern; R/C, reduced to complete.

Needle EMG	Initial 6 weeks after onset				Follow up 19 weeks after onset			
Muscle (Rt. side)	Fib	PSW	MUAP	Interf P	Fib	PSW	MUAP	Interf P
Tibialis anterior	3+	3+	Normal	Reduced	Normal	Normal	Normal	Complete
Peroneus longus	3+	3+	Normal	Reduced	Normal	Normal	Normal	R/C
Gastrocnemius	3+	3+	Normal	R/C	Normal	Normal	Normal	Complete
Biceps femoris short head	3+	3+	Normal	Complete	Normal	Normal	Normal	Complete
Biceps femoris long head	3+	3+	Normal	Complete	N/A	N/A	N/A	N/A
Tensor fasciae latae	Normal	Normal	Normal	Complete	N/A	N/A	N/A	N/A
Gluteus maximus	Normal	Normal	Normal	Complete	N/A	N/A	N/A	N/A
Vastus medialis	Normal	Normal	Normal	Complete	N/A	N/A	N/A	N/A
Lumbar paraspinalis	Normal	Normal			N/A	N/A		

H Reflex	Initial		Follow up		F Wave	Initial	Follow up
Nerve	Latency (ms)	Amplitude (μV)	Latency (ms)	Amplitude (μV)	Nerve	Latency (ms)	Latency (ms)
Rt. Tibial	29.58	4.8	30.21	1.7	Rt. Tibial	46.04	47.14
Lt. Tibial	No response	No response	29.48	1.8	Lt. Tibial	49.01	49.43

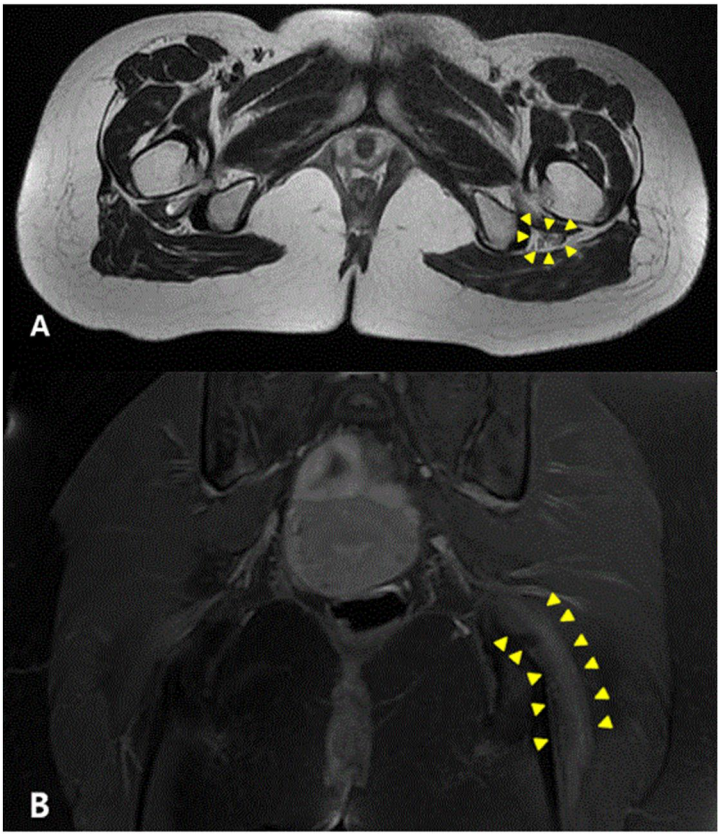

Fig 1. T2-weighted Pelvis MRI. Diffuse swelling and increased T2 signal intensity of left sciatic nerve after left sciatic foramen marked by yellow arrowheads in transverse (A) and coronal view (B). These findings are consistent with left sciatic neuropathy.