

Figure 1. Blink reflex study (A, B) and Facial Nerve Conduction Study (C)

(A) During right supraorbital nerve stimulation, ipsilateral R1 response are delayed, and ipsilateral R2 and contralateral R2 response is not detected. (B) During left supraorbital nerve stimulation, ipsilateral R1, and R2 response are not detected, and contralateral R2 response is normal. (C) Prolonged latency and decreased amplitude of CMAP are noted during right and left nerve stimulation.

Table 1. Serial nerve conduction studies of right upper and lower extremities

	1st 5 days		2nd 19 days		3rd 53 days	
	latency/NCV (ms/m/s)	Amp (mV)	latency/NCV (ms/m/s)	Amp (mV)	latency/NCV (ms/m/s)	Amp (mV)
Motor NCS						
Median nerve						
Terminal	11.00	0.80	10.40	1.84	6.20	5.50
Wrist-elbow	44.00	0.70	51.10	1.68	63.80	4.00
Elbow-axilla	56.20	0.40	72.90	1.68	60.70	5.00
F-latency	NP		33.90		32.80	
Ulnar nerve						
Terminal	6.00	1.70	6.00	2.70	4.00	6.70
Wrist-elbow	47.80	1.60	56.50	2.36	37.50	6.50
Across elbow	55.50	1.50	46.10	2.20	57.50	6.00
Elbow-axilla	55.00	1.10	50.00	2.20	60.00	6.00
F-latency	NP		34.00		30.00	
Posterior tibial nerve						
Terminal	7.80	1.16	6.20	2.20	5.80	5.60
Ankle-knee	42.00	1.10	37.20	1.80	47.00	4.10
F-latency	NP		50.00		46.60	
Peroneal nerve						
Terminal	20.80	1.00	19.60	1.64	11.00	1.28
Ankle-fibular head	50.00	1.00	37.80	1.64	43.30	1.00
Fibular head-knee	41.60	1.00	47.20	1.60	50.00	1.00
F-latency	70.00		65.20		54.40	
Sensory NCS	NCV (m/s)	Amp (mV)	NCV (m/s)	Amp (mV)	NCV (m/s)	Amp (mV)
Median nerve						
Finger-wrist	36.70	10.00	34.80	5.00	29.70	5.00
Wrist-elbow	52.30	10.00	55.20	15.00	54.70	10.00
Elbow-axilla	60.70	20.00	58.30	15.00	54.80	20.00
Ulnar nerve						
Finger-wrist	35.00	10.00	32.60	10.00	28.20	10.00
Wrist-elbow	52.30	10.00	52.50	10.00	54.70	20.00
Elbow-axilla	56.60	20.00	58.30	20.00	56.60	30.00
Sural nerve	32.80	7.20	33.30	10.00	36.10	10.00

NCV: nerve conduction velocity, NCS: nerve conduction study, Amp: amplitude

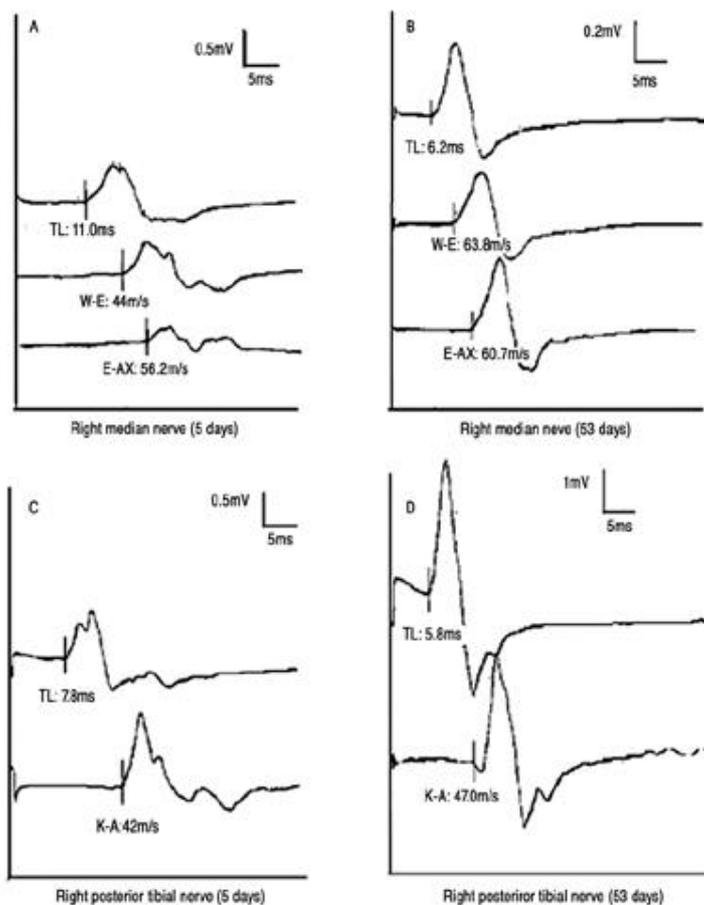


Figure 2. Median (A, B) and posterior tibial (C, D) motor nerve conduction velocity study

At hospital 5 days, prolonged terminal latency and dispersion were noted in the right median (A) and posterior tibial (C) nerves. At hospital 53 days, dispersion disappeared and the findings of motor nerve conduction study were improved in the right median (B) and posterior tibial (D) nerves.

TL: terminal latency, W: wrist, E: elbow, AX: axilla, K: knee, A: ankle

53

F

(Fig. 2 B,D).

(Table 1).

(Fig. 2 A,C). 3

300 mmH₂O

0/mm²,

0/mm², 185 mg/dl,

81 mg/dl

oligoclonal band

ganglioside

Oh¹ Ashurý

GD1b

²,

(400 mg/dl/day) 5

GD1b Ig G

19

가

³.

ganglioside

Miller Fisher

GQ1b IgG

GQ1b IgG 가

5

murine GQ1b

6 MFS

7

Fisher 가

8 GQ1b IgG 가 149

4 가

6

GQ1b IgG

GQ1b IgM

Miller Fisher

가

GQ1b GD3, GT1b

GD1b

GQ1b, GD3, GT1b

, GD1b가

가

Miller Fisher

9

가

10

ganglioside

ganglioside

REFERENCES

1. Oh SJ, La Ganke C, Claussen GC, Sensory Guillain-Barré syndrome. *Neurology* 2001;56:82-86.
2. Kusunoki S, Chiba A, Tai T, Kanazawa I. Localization of GM1 and GD1b antigen in the human peripheral nervous system. *Muscle Nerve* 1993;16:752-756.
3. Wicklein EM, Pfeiffer G, Yuki N, Hartard C, Kunze K. Prominent sensory ataxia in Guillain-Barré syndrome associated with IgG anti-GD1b antibody. *Journal of Neurological Sciences* 1997;151:227-229.
4. Asbury AK. Diagnostic considerations in Guillain-Barré syndrome. *Ann Neurol* 1981;9(suppl):S1-S5.
5. Chiba A, Kusunoki S, Obata H, et al. Serum anti-GQ1b IgG antibody associated with ophthalmoplegia in Miller Fisher syndrome and Guillain-Barré syndrome: Clinical and immunohistochemical studies. *Neurology* 1993; 43:1911-7.
6. Kusunoki S, Chiba A, Kanazawa I. Anti-GQ1b IgG antibody is associated with ataxia as well as ophthalmoplegia. *Muscle Nerve* 1999;22:1071-1074.
7. Kuwabara S, Asahina M, Nakajima M, Mori M, Fukutake T, Hattori T, Yuki N. Special sensory ataxia in Miller Fisher syndrome detected by postrural body sway analysis. *Ann Neurol* 1999;45:533-536.
8. Becker WJ, Watters OU, Humphreys P. Fisher syndrome in childhood. *Neurol* 1981;31:555-560.
9. Susuki K, Yuki N, Hirata K. Features of sensory ataxic neuropathy with anti-GD1b IgM antibody. *Journal of Neuroimmunology* 2001;112:181-187.
10. Kim BJ, Seo YL. Relapsing sensory ataxia initially manifested by Miller Fisher syndrome. *J Korean Neurol Assoc* 1997;15:216-221.