

가

A case of Idiopathic Bilateral Brachial Neuritis Involving the Bilateral Phrenic Nerves

Jae-Hyuk Kwak, M.D., Dong-Kuck Lee, M.D., Oh-Dae Kwon, M.D.

Department of Neurology, School of Medicine, Catholic University of Daegu

Bilateral brachial neuritis is clinically uncommon and accidentally involvement of bilateral phrenic nerves is rarely reported. We experienced a 26 year old man who developed subacute onset of asymmetric bilateral shoulder and arm weakness. The weakness slowly aggravated and finally suffered from dyspnea due to bilateral phrenic nerve palsy. Cervical spine MRI and CSF study showed no abnormality. Viral markers and other serological test showed no specific finding. Electromyographic study showed bilateral brachial axonal polyneuropathy with cervical and upper thoracic polyradiculopathy. And bilateral phrenic nerve conduction study showed no response. He showed no improvement for 10 months after treatment and managed with continuous artificial ventilation. We report a case of idiopathic bilateral brachial neuritis accidentally involving bilateral phrenic nerves.

Key Words: Bilateral brachial neuritis, Phrenic nerves

1897 Feinberg influenza 3
 1948
 Parsonage Turner MRI
 가 3
 90% 3
 3
 98 / , 24 /
 가
 (trapezius muscle),
 (sternocleidomastoid muscle), (deltoid
 muscle), medical
 research council (MRC) grade 3, 4
 , 가 MRC grade 4
 (Figure A, B).

Address for correspondence
Dong Kuck Lee, M.D.
 Department of Neurology, School of Medicine, Catholic University of Daegu
 3056-6 Daemyung 4-dong, Nam-gu, Daegu, 705-718, Korea
 Tel: +82-53-650-4261 Fax: +82-53-654-9786
 E-mail: dklee@cu.ac.kr

가

^{9,10} 가

58 mg/dL 가

oligoclonal

(supraspinatus muscle), 가
(infraspinatus muscle), (serratus anterior muscle), (biceps muscle), (triceps muscle)
가 ^{3,4}

band , Ig G index 0.001

14

4

1/3

MRC grade 2,
MRI
10

가
MRC grade 3

가 ³

, 가

가

4

가

10

가
⁴⁻⁶
1.64 /100000
75

⁷

3

가

^{3,4,8}

MRI

^{3,8}

tears),

(rotator cuff

가

가

⁹⁻¹¹

가

가

가

가



A



B

Figure 1. The patient shows severe hand (A) and shoulder muscle (B) atrophy.

가

가 3

, 3

가

5,6,10,12,13

14

Nardone 15

17

가

가

가

가

REFERENCES

1. Feinberg J. Fall von Erb-Klumpke scher Lahmung nach influenza. *Centralbl* 1897;16:588-637.
2. Parsonage MJ, Turner JWA. The shoulder-girdle syndrome. *Lancet* 1948;1:973-978.
3. Tsairis P, Dyck PJ, Mulder DW. Natural history of brachial plexus neuropathy. Report on 99 patients. *Arch Neurol* 1972;27:109-117.
4. Spillane JD. Localized neuritis of the shoulder girdle. *Lancet* 1943;2:532-535.

5. Weikers NJ, Mattson RH. Acute paralytic brachial neuritis. A clinical and electrodiagnostic study. *Neurology* 1969;19:1153-1158.
6. Dillin L, Hoaglund FT, Scheck M. Brachial neuritis. *J Bone Joint Surg* 1985;67A: 878-880.
7. Meuleman J, Timmerman V, Broeckhoven CV, Jonghe PD. Hereditary neuralgic amyotrophy. *Neurogenetics* 2001;3:115-118.
8. James JL, Miles DW. Neuralgic amyotrophy: A clinical and electromyographic study. *Br Med J* 1966;2:1042-1043.
9. McCarty EC, Tsairis P, Warren RF. Clinical orthopaedics and related research. New York: *Lippincott Williams & Wilkins*, 1999;37-43.
10. Aymond JK, Goldner JL, Hardaker WT. Neuralgic amyotrophy. *Orthop Rev* 1989;18:1275-1279.
11. DePalma AF. Surgery of the shoulder. 3rd Ed. Philadelphia: *JB Lippincott* 1983; 597-598.
12. Walsh NE, Dumitru D, Kalantri A, Roman AM Jr. Brachial neuritis involving the bilateral phrenic nerves. *Arch Phys Med Rehabil* 1987;68:46-48.
13. Flaggman PD, Kelly JJ Jr. Brachial plexus neuropathy: an electrophysiologic evaluation. *Arch neurol* 1980;37:160-164.
14. Ferrini L, Della-Torre P, Perticoni G, Cantisani TA. Neuralgic amyotrophy of the shoulder girdle: The Parsonage-Turner syndrome. *Ital J Orthop Traumatol* 1986;12:223-231.
15. Nardone R, Bernhart H, Pozzera A, Taddei M, Tezzon F. Respiratory weakness in neuralgic amyotrophy: report of two cases with phrenic nerve involvement. *Neurol Sci* 2000;21:177-181.