

1

, \* †  
\* † †

**A Case of Acute Colchicine-induced Myopathy with Myotonia in Behcet Disease**

Se-Ho Oh, M.D., In-Soo Joo, M.D., Sung-Yeol Joo, M.D.,  
Ewn-So Lee, M.D.\*, Chull Shim, M.D.†, Jang-Hee Kim, M.D.†

Department of Neurology, Dermatology\*, and Pathology†, College of Medicine, Ajou University

Colchicine has been used in the treatment of autoimmune diseases such as Behcet disease. Long-term use of colchicine can cause vacuolar myopathy on rare occasions. We report colchicine-induced myopathy with myotonia in Behcet disease. A 34-year-old man with Behcet disease presented progressive proximal weakness, myalgia, and difficulty in relaxation of grip after increasing the dosage of colchicine. Electrophysiological findings showed myotonic myopathy. Muscle biopsy revealed vacuolar myopathy. His symptoms were resolved with the discontinuation of colchicine.

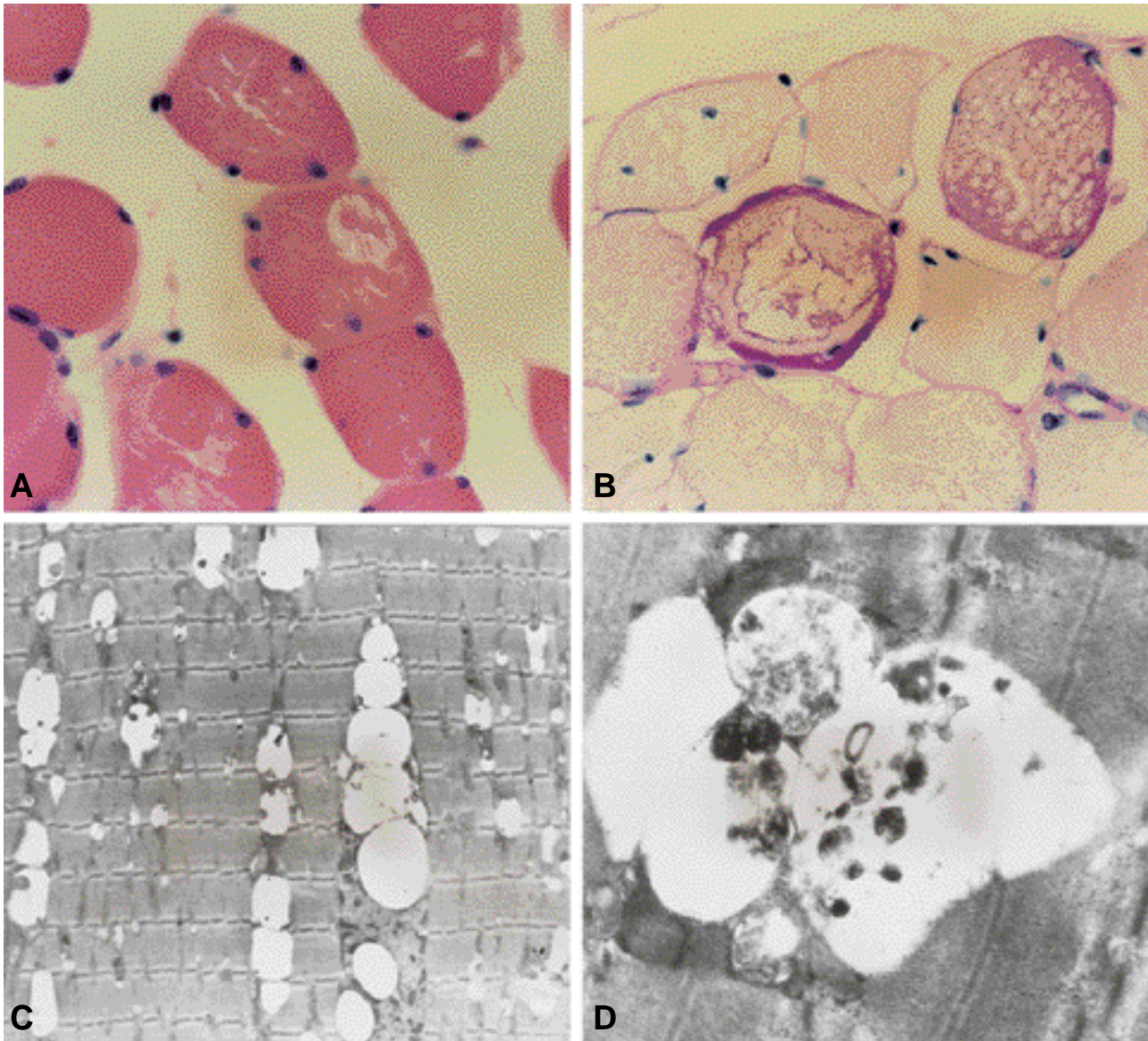
J Korean Neurol Assoc 21(2):220~223, 2003

**Key Words** : Colchicine, Myopathy, Myotonia

(mitotic spindle) (metaphase) (sol-gel transformation) (autoimmune diseases)

가 , 33 가 5 , 4  
(0.6 mg/ )  
50 20  
가  
1.2 mg 2  
2  
가  
가  
4 cyclosporine 300 mg, corticosteroid (Triamcinolone 4 mg) tetracycline (Minocin 100 mg)  
2 가 ,  
가  
MRC IV-  
IV0  
III IV0 가

Manuscript received August 13, 2002  
Accepted in final form January 14, 2002  
\* Address for correspondence  
**In-Soo Joo, M.D.**  
Department of Neurology  
Ajou University School of Medicine  
5 San Woncheon-dong, Paldal-gu, Suwon-si, 442-749, Korea  
Tel : +82-31-219-5172 Fax : +82-31-219-5178  
E-mail : isjoo@madang.ajou.ac.kr



**Figure 1.** Panels A (H&E stain,  $\times 400$ ) & B (PAS stain,  $\times 200$ ) are light micrographs of transverse sections of deltoid muscle, and Panels C ( $\times 4,000$ ) & D ( $\times 12,000$ ) are electron micrographs of longitudinal sections. Panels A and B show numerous coalescent vacuoles and large central vacuoles. In panel C, the central, coalescing vacuoles have heterogeneous dense contents. Panel D shows heterogeneous nature of autophagic vacuoles.

가 . . . . . (polyphasic) ,  
 (thenar muscle) (percussion) (early recruitment) (full  
 (myotonia) . . . . . interference pattern)  
 . . . . . (deltoid muscle)  
 CK 2084 U/L 가 . . . . . (hematoxylin-eosin stain)  
 BUN/creatinine 가 . . . . . (vacuolar myopathy)  
 , . . . . . 가 (multinucleated autophagic  
 (insertional activity) vacuole가 (Fig. 1).  
 가 (fibrillation) AST/ALT (230 U/L, 266 U/L) 가  
 (positive sharp wave) (spontaneous activity) 63,000/uI  
 activity가 (++) ~ (+++) 가  
 (myotonic discharge)가 corticosteroid cyclosporine  
 (motor unit potential)

CK, myoglobin, corticosteroid, cyclosporine, AST/ALT, corticosteroid, cyclosporine, Kunitz, CK (intracytoplasmic vacuole), Rutkove, (muscle membrane), channelopathy, Na<sup>+</sup>, Cl<sup>-</sup>, Ca<sup>++</sup> (sarcolemmal membrane), Ca<sup>++</sup>-activated (apamin-sensitive) potassium channels

가, apamin, apamin-sensitive potassium channels, Cyclosporine, cyclosporine, cyclosporine, Cyclosporine, (type II muscle fiber), (atrophy), CK가, 가, 가

REFERENCES

1. Shinde A, Nakano S, Abe M, Kohara N, Akiguchi I, Shibasaki H. Accumulation of microtubule-based motor protein in a patient with colchicine myopathy. *Neurology* 2000;55:1414-1415.
2. Lee BI, Shin SJ, Yoon SN, Choi YJ, Yang CW, Bang BK. Acute Myopathy induced by Colchicine in a cyclosporine-treated renal transplant recipient. *J Korean Med Sci* 1997; 12:160-161.
3. Kunitz RW, Duncan G, Watson D, Alderson K, Rogawski MA, Peper M. Colchicine myopathy and neuropathy. *N Engl J Med* 1987;316:1562-1568.
4. Rutkove SB, De Girolami U, Preston DC, Freeman R, Nardin RA, Gouras GK, et al. Myotonia in colchicine myoneuropathy. *Muscle Nerve* 1996;19:870-875.
5. Behrens MI, Vergara C. Increase of apamin receptors in skeletal muscles induced by colchicine: possible role in myotonia. *Am J Physiol* 1992;263:794-802.
6. Renaud J, Desnuelle C, Schmid-Antomarchi H, Hugues M, Serratrice G, Lazdunski M. Expression of apamin receptor in muscles of patients with myotonic muscular dystrophy. *Nature* 1986;319:678-680.
7. Sonoda Y, Gotow T, Kuriyama M, Nakahara K, Arimura K, Osame M. Electrical myotonia of rabbit skeletal mus-

- cles by HMG-CoA reductase inhibitors. *Muscle Nerve* 1994;17:891-897.
8. Behrens MI, Jalil P, Serani A, Vegara F, Alvarez O. Possible role of apamin-sensitive K<sup>+</sup> channels in myotonic dystrophy. *Muscle Nerve* 1994;17:1264-1270.
9. Breil M, Chariot P. Muscle disorders associated with cyclosporine treatment. *Muscle Nerve* 1999;22:1631-1636.