

IgG Monoclonal Gammopathy of Undetermined Significance

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Sensorimotor Polyneuropathy and Multiple Cranial Neuropathies Associated with IgG Monoclonal Gammopathy of Undetermined Significance

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The occurrence of polyneuropathy in association with monoclonal gammopathy of undetermined significance (MGUS) is quite common. However, reports of MGUS associated cranial neuropathies are rare. A 63 year-old women was presented with diplopia and swallowing difficulty. Neurological examination showed limitation of abduction of right eye, right peripheral facial palsy, decreased hearing and gag reflex, left side deviation of uvula, and decreased DTR. Sensorimotor polyneuropathy were observed with electrophysiological studies. Protein and immunoelectrophoresis revealed IgG monoclonal gammopathy. She was treated with intravenous immunoglobulin and steroid, and her symptoms and signs were improved. This case suggested that she had sensorimotor polyneuropathy and multiple cranial neuropathies associated with IgG MGUS.

Key Words: MGUS, Polyneuropathy, Cranial neuropathy

MGUS (Monoclonal gammopathy of undetermined significance), Waldenstrom's macroglobulinemia,

63 3

! MGUS

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(Chronic Inflammatory Demyelinating Polyradiculopathy, CIDP) rhea가 ,

2

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MGUS

(Grade IV)

(Fig. 1).

IgG 가

IgA kappa (()

(Fig. 2-A, B).

가 6/mm³, 290

mg/dl (15~45), Meylin basic protein 1.8 ng/dl

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Figure 1. Photographs of the patients. After two month of treatment, slight improvement of abduction are seen in the right eye.

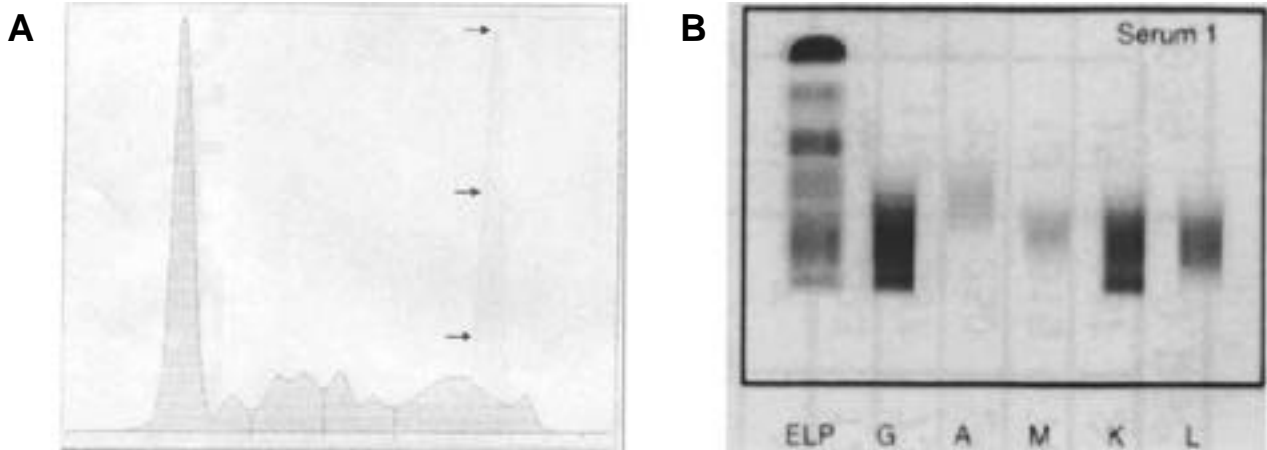


Figure 2. A. The serum PEP pattern shows M-band(arrow) in the gamma region (Monoclonal gammopathy). **B.** The serum Immunofixation electrophoresis (IFE) shows abnormal zone of restrictions in IgG and kappa light chain, suggesting monoclonal component Monoclonal gammopathy, IgG kappa type.

(0~1) 가 가 IgG Index (2.087)

cellularity) (hyper- immunoglobulins Paraproteinemia
 M - proteins
 Immunoglobulin heavy chains
 light chains heavy chain class
 IgG, IgA, IgM, IgD IgE Light
 chain class kappa (() lambda (()
 .³ MGUS IgM, IgG, IgA IgM
 - MAG (Myelin - Associated Glycoprotein
 Antibody, anti - MAG)
 F - 가
 H - 가
 (Table 1).
 IgG MGUS
 5 400 mg/kg MGUS IgA IgG
 immunoglobulin (IVIg) MGUS 가^{2,5}
 Steroid 2 Immunoglobulin
 Steroid 2
 50
 MGUS

IgG MGUS 가 IgM
 MGUS IgA MGUS IgG MGUS
 kappa .²
 MGUS 70 3%, 80 4%
 가
 macroglobulinemia 46 ,
 8.4 ,
 M- 가 , IgM/IgA
 MGUS IgG MGUS
 .⁸
 MGUS immunoglobulin ,
 (Cyclosporin A, Chlorambucil
) , Immunoglobulin
 IgM MGUS IgG/IgA MGUS
 IgG MGUS
 40% IgM
 MGUS IgG/IgA MGUS 가
 .^{7,9}
 MGUS IgG
 (IVIG) immunoglobulin

REFERENCES

1. Ropper A. H, Gorson, Kenneth C. Current Concepts: Neuropathies Associated with Paraproteinemia. *N Engl J Med* 1998;338(22):1601-1607.
2. Vital, Anne. Paraproteinemic Neuropathies. *Brain Pathology* 2001;11(4):399-4071.
3. Simmons, Zachary. Paraproteinemia and Neuropathy. *Curr Opin Neurol*, 1999;12(5):589-595.
4. Simovic D, Gorson K. C, Ropper A. H. Comparison of IgM-MGUS and IgG-MGUS polyneuropathy. *Acta Neurol Scand*. 1998;97(3):194-200.
5. Eduardo Nobile-Orazio and Marinella Carpo. Neuropathy and monoclonal gammopathy. *Curr Opin Neurol*. 2001; 14:615-620.
6. Gorson, Kenneth C, Ropper, AH, Weinberg, David H, Weinstein, Robert. Efficacy of Intravenous Immunoglobulin in Patients With IgG Monoclonal Gammopathy And Polyneuropathy. *Arch Neurol* 2002;59(5):766-772.
7. Frohman EM, Tusa R, Mark AS, Cornblath DR. Vestibular dysfunction in chronic inflammatory demyelinating polyneuropathy. *Ann Neurol* 1996;39:529-535.
8. Kyle, Robert A, Rajkumar, S. Vincent. Immunological reviews. 2003;194:112-139.
9. Dyck PJ, Low PA, Windebank AJ, Jaradeh SS, Gosselin S, Bourque P. Plasma exchange in polyneuropathy associated with monoclonal gammopathy of undertetermined significance. *N Engl J Med* 1991;325:1482-1486.