Coexistence of Myasthenia Gravis and Systemic Lupus Erythematosus.

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Background: Myasthenia gravis (MG) and systemic lupus erythematosus (SLE) are well recognized to coexist and have some similarities in immunologic, clinical and serologic findings. Despite several reports of the association with autoantibodies and thymectomy in these disorders, the pathomechanism of coexistence remains to be elucidated.

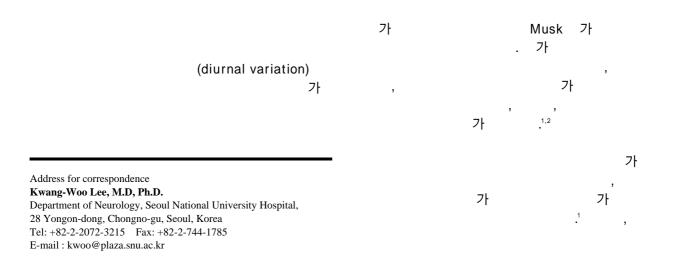
Objective: We aimed to investigate the relationship of MG and SLE through overall features of patients with both disorders;: clinical, laboratory, and electrophysiological findings.

Materials and Methods: We reviewed the medical records of 6 consecutive patients with MG and SLE (2 men, 4 women, ages 17-51, mean 30.5 years, Seoul National University Hospital, from 1998 to 2005).

Results: Three patients who developed SLE first, had ocular type of MG and 2 were children showing much severe and recurrent SLE features and only 1 patient had thymic hyperplasia. The other 3 developed MG first and they were generalized type and none underwent thymectomy. In addition, the development of MG or SLE was not coincident with remission or improvement of another disorder.

Conclusion: The coexistence of SLE and MG may support the hypothesis of two different antibody populations modulated by thymus in the opposite extremes This report suggests that the systemic and extensive autoimmune response in preceding MG or SLE may effect the development of the other disorder followed, while, the coexistence of two disorders cannot be explained by the hypothesis of two different antibody populations modulated by thymus in the opposite extremes The role of thymectomy and the theoretical subsequent effect on the development of SLE have been debated with controversy. However, SLE occurred without thymectomy in MG and these disorders did not develop in the quiescent period of another disorder. Therefore, the other pathomechanism for the coexistence of MG and SLE should be elucidated.

Key Words: Myasthenia gravis, Systemic lupus erythematosus, Coexistence



clear antibody) (100 %), (83.3%),(83.3%), (66.7%)(Guillain -(serositis), (Table 2). Barre' syndrome), (hair loss), (cold intolerance), (Raynaud phenomenon), lupus anticoagulant antibody, anti-Ro antibody (Table 2). 50% (3)가 (generalized type), 50% (3)가 (ocular type) 1 가 1998 1 2005 10 가 3 가 (mestinone), (azathioprine) 3 가 가 2 The American College of Rheumatology (1997)(Table 1).4 2 5 , 1 12 , 6 7.3 가 2420 가 (0.25%)17 30.5). 6 51 가 10% 3

3 15% 가 2 (Table 2). 5~10% 7.7% DNA, anti-Sm antibody, positive LE cell, antinu-3.1%

Table 1. The diagnosis of SLE (based on the American College of Rheumatology (ACR) criteria)

Malar rash

Discoid rash

Photosensitivity

Oral ulcers

Arthritis

Serositis (pleurisy or pericarditis)

Renal disorder (proteinuria above 0.5 g/24 h or cellular casts)

Neurological disorder

Haematological disorder (haemolytic anaemia, leukopenia or lymphopenia on two or more occasions, or thrombocytopenia)

Immunological disorder

Antinuclear antibody

If four of these criteria are presents at any time during the course of disease, a diagnosis of systemic lupus can be made with 98% specificity and 97% sensitivity.

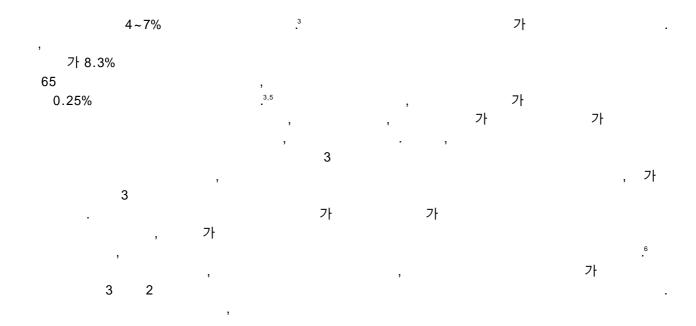


Table 2. Demographic, clinical, laboratory, and electrophysiological results of patients

	Group with MG earlier*			Group with SLE earlier [†]		
	patient 1	patient 2	patient 3	patient 4	patient 5	patient 6
Sex	F	F	F	M	F	M
Age(years)	33	32	32	51	18	17
Interval between two disorders(yrs)	1	10	7	3	12	11
Features of SLE(%)						
malar rash (66.7)	-	+	+	+	-	+
discoid rash (0)	-	-	-	-	-	-
oral ulcers (16.7)	-	-	-	-	+	-
arthritis (83.3)	+	+	+	+	+	-
serositis (33.3)	-	-	-	-	+	+
renal disorder (50)	-	+	-	-	+	+
neurologic disorder (16.7)	-	-	-	-	+	-
hematologic disorder (83.3)	+	+	+	+	-	+
immunologic disorder (100)	+	+	+	+	+	+
ds DNA (83.3)	+	-	+	+	+	+
anti-Sm antibody (16.7)	-	+	-	-	-	-
false-positive VDRL (0)	-	-	-	-	-	-
positive LE cell (33.3)	+	-	+	-	-	-
antinuclear antibody (100)	+	+	+	+	+	+
Features of MG (%)						
Type	generalized	generalized	generalized	ocular	ocular	ocular
acetylcholine Rc Ab (50)	-	+	+	+	-	-
tensilon test (66.7)	+	-	+	-	+	+
Jolly test (100)	+	+	+	+	+	+
Chest CT(thymus) (16.7)	-	-	-	hyperplasia	-	-
thymectomy (0)	-	-	-	-	-	-
Medication (%)						
steroid, azathioprine (33.3)	-	-	-	-	+	+
mestinone (66.7)	+	+	+	+	-	-

^{+:} presence of symptoms / signs or positive result

^{-:} absence of symptoms / signs or negative result

^{*}Group with MG earlier: Group which developed MG earlier than SLE features.

[†]Group with SLE earlier: Group which developed SLE earlier than MG features.

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