

Lower urinary tract symptoms in myasthenia gravis



Please Click!



Ryuji Sakakibara, Setsu Sawai, Tsuyoshi Ogata
Neurology, Sakura Medical Center, Toho University,
Sakura, Japan

We have no COI.

Objective

It remains uncertain to what extent **lower urinary tract (LUT) symptom (LUTS)** is a comorbidity of **myasthenia gravis (MG)**. We prospectively administered a LUTS questionnaire devised for detecting neurogenic pelvic organ dysfunction in an MG group and healthy control group and compared the results.

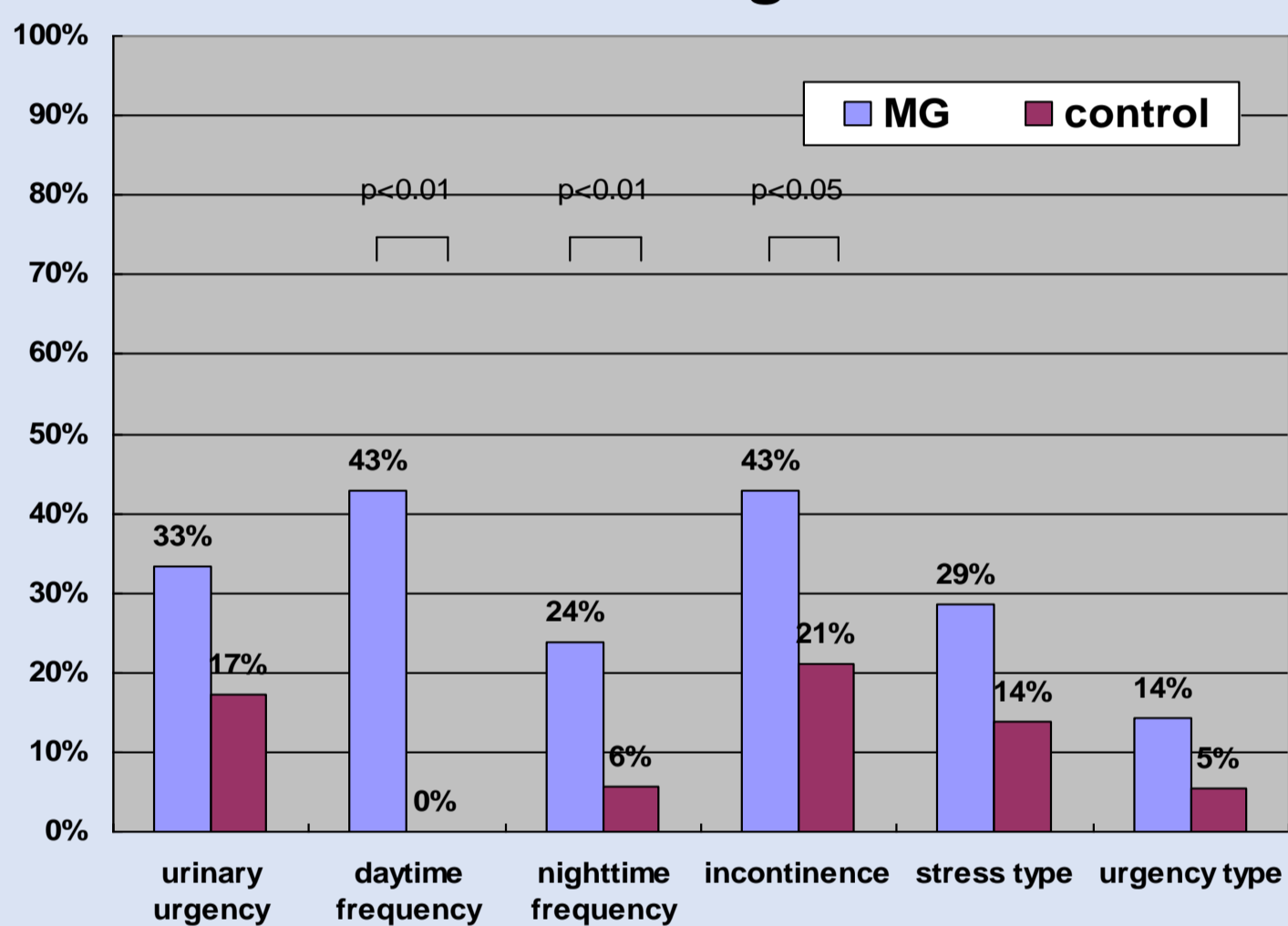
Methods

The MG group comprised 21 patients: 15F, 6M, age range 22-73 (mean 47) years, illness duration range 0.2-8 (mean 3.5) years, median MGFA grade 2, all walking independently. Therapies included thymectomy in 17, prednisolone 5-20 mg/day in 10, and pyridostigmine bromide 60-180 mg/day in 9.

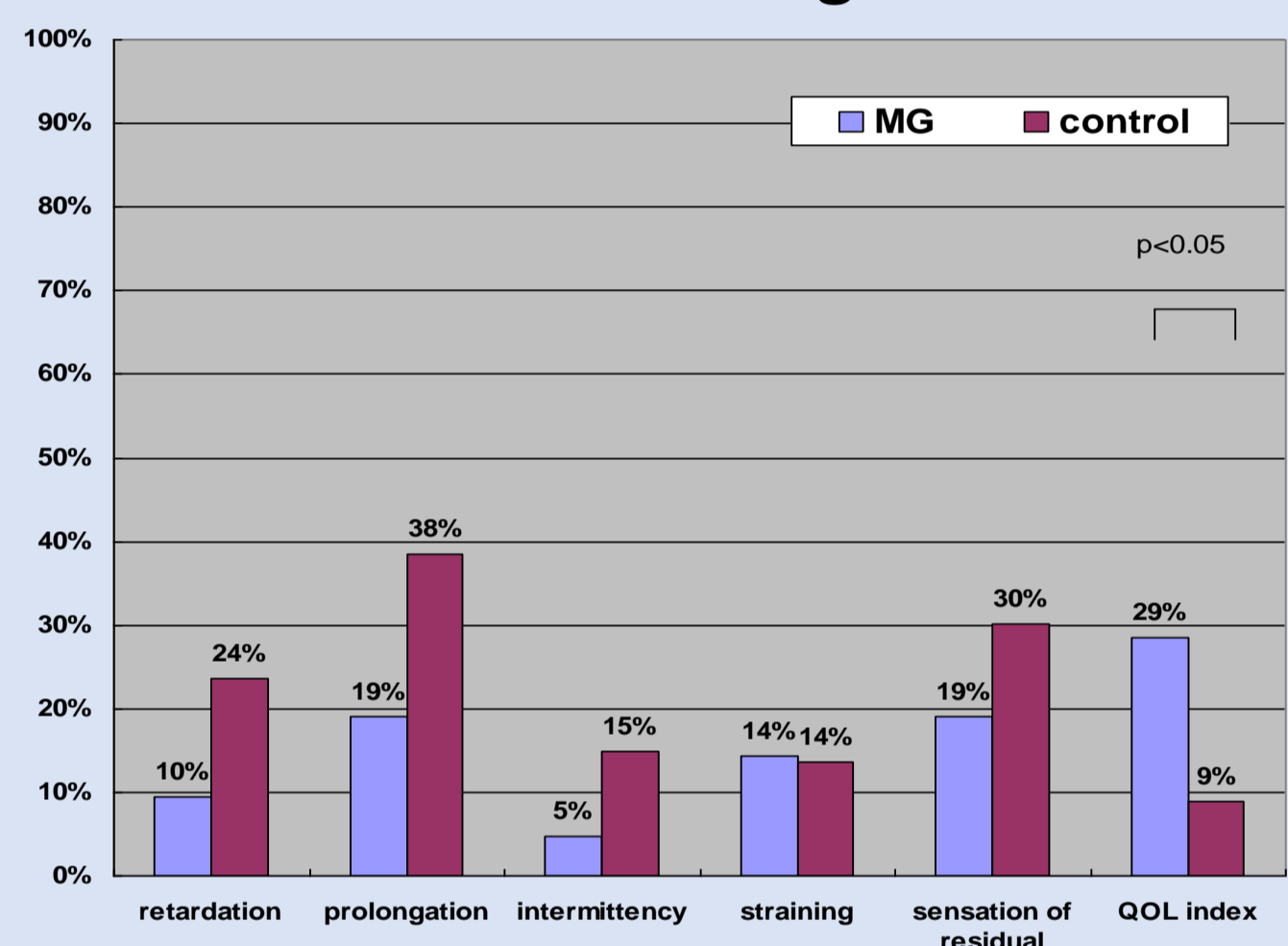
The control group, who were undergoing an annual health survey, comprised 235 consecutive subjects: 120F, 115M, age range 30-69 (mean 48) years.

The LUTS questionnaire had 9 questions. Each question was scored from 0 (none) to 3 (severe) with an additional quality of life (QOL) index scored from 0 (satisfied) to 3 (extremely dissatisfied). Student's t-test.

Results – storage LUTS



Results – voiding LUTS



Interpretations

★presumed mechanism of MG-derived LUTS: storage symptom

■female MG's stress urinary incontinence > sphincter weakness suspected.

female volunteer: pudendal nerve block induced stress urinary incontinence

female MSA: Onuf's nucleus lesion led to stress urinary incontinence

○Berger AR et al. Myasthenia gravis presenting as uncontrollable flatus and urinary/fecal incontinence. Muscle Nerve 1996; 19 : 113-114.

70M mixed urinary incontinence, sphincter weakness (+).

○Howard JF Jr et al. Urinary incontinence in myasthenia gravis; a single-fiber electromyographic study. Ann Neurol 1992; 32: 254.

31F stress urinary incontinence, sphincter single-fiber EMG showed abnormality (+).

■male MG's urinary frequency & urge urinary incontinence > adverse events of medication suspected. a. polyuria due to corticosteroids b. Cholinesterase inhibitor-induced nicotinic & muscarinic Ach R stimulation.

■male & female MG's voiding difficulty > possible antibodies against nicotinic & muscarinic Ach R. ○Christmas TJ et al. Detrusor failure in myasthenia gravis. Br J Urol 1990; 65: 422.

59F motor, voiding difficulty, detrusor underactivity (+).

○Matsui M et al. Seronegative myasthenia gravis associated with atonic urinary bladder and accommodative insufficiency. J Neurol Sci 1995; 133: 197-199.

20F motor, voiding difficulty, detrusor underactivity (+).

Conclusions

Our study results showed that MG patients had significantly more LUTS (**storage symptom**) than healthy control subjects and had worse LUTS-related QOL; therefore amelioration of LUTS in MG is important.