

QUESTIONNAIRE BASED ASSESSMENT OF PELVIC ORGAN DYSFUNCTION IN MULTIPLE SYSTEM ATROPHY

Hypothesis / aims of study

Multiple system atrophy (MSA) is neurodegenerative disease characterized clinically by any combination of autonomic, cerebellar and extrapyramidal symptoms. Autonomic symptoms are usually severe and urinary symptoms are one of the cardinal features in MSA. Bowel dysfunctions and sexual dysfunctions are also common in MSA. Qualities of life (QOL) in patients with MSA are severely impaired by the presence of pelvic organ dysfunction. Therefore we aimed to examine the prevalence of the pelvic organ dysfunction in MSA by our detailed questionnaire¹ on these functions.

Study design, materials and methods

We recruited 256 patients with MSA seen at our neurology clinic. All patients met the diagnostic criteria of MSA². The MSA group comprised 160 men and 96 women. Mean age was 62 years old. The control group comprised 158 individuals who were undergoing annual health survey. Mean age was 52 years old. We performed a questionnaire on pelvic organ dysfunction for MSA and control groups. With his or her informed consent, the questionnaire sheet was handed personally to the subject by a medical or co-medical staff member. The questionnaire had three parts: bladder, bowel, and sexual function. Each questions were evaluated as normal, mild (> once a month), moderate (>once a week), severe (>once a day), respectively. Mannwhitney's U-test was used for statistical analysis.

Results

As compared with the control group, in the MSA group, the prevalence of pelvic organ dysfunctions were significantly higher for urinary urgency (75% of the women, 64% of the men.), daytime frequency (45%, 43%), nighttime frequency (65%, 69%), urgency incontinence (75%, 66%), retardation in initiating urination (62%, 73%), prolongation poor stream (71%, 81%), difficulty in expulsion (66%, 59%), fecal incontinence (14%, 18%) decrease in libido (92%, 84%), decrease in sexual intercourse (95%, 92%). QOL in MSA group was therefore significantly impaired in urinary dysfunction (70%, 76%), bowel dysfunction (52%, 40%), sexual dysfunction (26%, 45%), respectively.

Interpretation of results

The present findings suggested that the pelvic organ functions were severely disturbed in MSA. In urinary dysfunction, both the storage and voiding functions were impaired, which might mostly reflect detrusor hyper activity with impaired contractile function (DHIC)³. In bowel dysfunction, although difficulty in expulsion is common in MSA, presence of fecal incontinence might also be a characteristic feature. Although sexual dysfunction was also common in MSA, QOL index in sexual dysfunction was not as high as in urinary and bowel dysfunction. One reason is presumably because comorbid motor dysfunction was significant and affecting the sexual behaviour.

Concluding message

Pelvic organ dysfunction is common in MSA, and severely impaired QOL in patients with MSA. Amelioration of pelvic organ dysfunction, particularly urinary and bowel dysfunction, is important in patients with MSA.

References

- 1) Auton Neurosci-Basic (2001) 92:76-85
- 2) J Neurol Sci (1999) 163:94-98
- 3) Neurourol Urodyn (2006) 25:356-360

FUNDING: We have no source of funding or grant

CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.

HUMAN SUBJECTS: This study was approved by the Chiba university and followed the Declaration of Helsinki Informed consent was obtained from the patients.