Objective/Background

- Multiple system atrophy (MSA) frequently results in the development of sleep-disordered breathing (SDB), though few reports have described the natural course of this phenomenon.
- The aim of the present study was to determine the natural course of SDB and prognostic factors associated with such conditions in MSA.

Patients/Methods

- We recruited 24 consecutive patients with probable MSA who had not been treated with continuous positive airway pressure (CPAP) and had undergone overnight polysomnography (PSG) more than once following the development of snoring or stridor. Based on changes in the apnea-hypopnea index (AHI) over the course of the disease, we divided patients into two groups (AHI-maintained and AHI-deteriorated) and compared the clinical findings.

Results

- Mean duration between the first and last PSG was 2.4 ± 1.5 years, and patients underwent PSG assessment an average of 2.5 ± 0.6 times during this period.
- During this interval, AHI increased from 19.4 ± 22.8/h to 34.4 ± 30.1/h (p = 0.006), although spontaneous improvement was observed in 29% of patients.
- Following the first PSG, all patients were diagnosed with obstructive sleep apnea; however, the SDB type changed from obstructive sleep apnea to central sleep apnea in 3 of 24 (13%) patients during the period between the first and last PSG.
- Shorter intervals between the onset of disease and the first PSG (the appearance of snoring and laryngeal stridor) may predict rapid progression of AHI (p = 0.037). Although previous studies have demonstrated that risk factors for OSA in adults include obesity, age, and male sex, these factors were not associated with worsening of SDB in MSA.

Conclusions

- Although SDB associated with MSA exacerbates with disease progression, spontaneous improvement in AHI may occur in some patients. Earlier development of snoring or stridor may predict rapid progression of SDB in MSA.

COI: We have nothing to disclose.

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