



Background

It is well known that Multiple Sclerosis (MS) can cause a number of speech changes, such as dysarthria and weak voice resulting from brainstem demyelination. Spasmodic (or spastic) dysphonia is a focal dystonia resulting in task-specific, action-induced spasm of the vocal cords. It may occur alone or as part of generalized dystonia. It has been reported in association with ALS, central pontine myelinolysis, mitochondrial disorders, and after valproic acid or neuroleptic administration. It presents with fluctuating severity resulting in halting speech and impaired ability to communicate. It has not been previously reported in the MS literature as a symptom resulting from MS itself or as possibly coexisting with MS.

Objective

To report five patients with MS and spasmodic dysphonia

Methods

- Retrospective review of 297 records from patients who visited the MS clinic from July to December 2008.
- Five patients with MS and spasmodic dysphonia were identified (1.6%)
- The diagnosis of spasmodic dysphonia was confirmed by an ENT specialist.

Results

- Prevalence of spasmodic dysphonia in MS patients was 1.6%, while incidence in the general population is 0.0005%
- Demographic characteristics of the patients are shown in Table 1.

Mean age of spasmodic dysphonia diagnosis (SD)	39.6 (6.1)	
Mean age of MS diagnosis (SD)	38.8 (5.5)	
Race	Caucasian	80%
	African-American	20%
Gender	Women	100%
	Men	0%
MS type	RRMS	60%
	SPMS	40%
Mean duration of spasmodic dysphonia (SD)	4.3y (4.5)	

Table 1. Patients' demographics

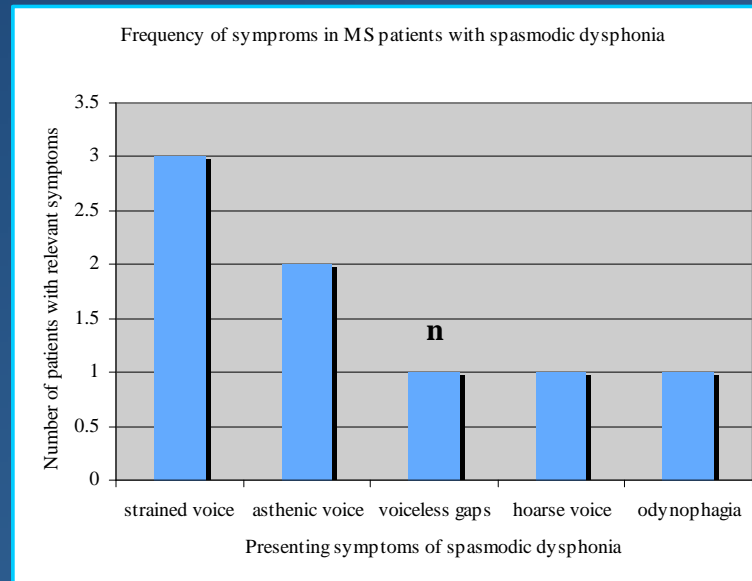


Fig 1. Symptoms of spasmodic dysphonia in MS patients

Results cont.

- Three patients (60%) were diagnosed with spasmodic dysphonia before being diagnosed with MS.
- Two patients (40%) reported the onset of spasmodic dysphonia simultaneously or soon after the MS diagnosis.
- Only one patient had brainstem lesions on the MRI
- Frequency of presenting symptoms of spasmodic dysphonia is shown on Fig 1.
- All patients had to limit activities they enjoy (e.g. singing in the choir)

Conclusions

- In our study, the prevalence of spasmodic dysphonia was higher in MS patients than in the general population.
- Spasmodic dysphonia can precede the diagnosis of MS, be the first manifestation or follow the diagnosis of MS.
- Spasmodic dysphonia affects communication and quality of life.
- A possible association between these two diseases should be further investigated.

References

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