

Demographic poor prognostic factors in Mexican patients with multiple sclerosis

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Background

Multiple sclerosis (MS) is the main cause of non traumatic disability in young people. There are many prognostic factors which predict long-term disability progression, like smoking, gender and age, being poor prognostic factors smoking patients, male gender and age older than forty years. However, in our population, there are not such kinds of studies.

Objectives

To establish if age, gender, and smoking are long term disability prognostic factors in Mexican population.

Methods

We carried out an observational, analytic, cross-sectional and retrolective study at Neurology service in Specialities Hospital at Siglo XXI National Medical Center in Mexico city. We took the information from medical records of hospitalized patients from january 2017 to january 2020 with new MS diagnosis, getting the proportion of patients with EDSS greater than 2 by six months of diagnosis, frequency of smoking, male gender and older than forty years, performing Chi-square.

Results

75 patients were diagnosed, only 73 completed the 6 months follow-up. The probability of getting an EDSS greater than 2 in each group was:

	Total	EDSS greater than 2 at six months	OR	95% CI	p value
Male gender	37 (50.6%)	10 (27%)	1.39	0.47-4.06	0.11
Older than 40y	21 (28.7%)	7 (33.3%)	1.86	0.60-5.74	0.42
Smoking	23 (31.5%)	10 (43.4%)	2.89	1.32-6.34	0.007

Conclusions

Of all the prognostic factors evaluated, only smoking predicts poor disability in our population; despite male gender and age older than forty years have an OR greater than 1, there are not statistically significant. However, further studies with a greater number of patients are needed in order to prove these results.

References

- Rotstein D, Montalban X. Reaching an evidence-based prognosis for personalized treatment of multiple sclerosis. *Nature Reviews Neurology* 2019. DOI 10.1038/ s41582-019-0170-8.
- Heydarpour P, Manouchehrinia A, Beiki O, et al. Smoking and worsening disability in multiple sclerosis: a meta-analysis. *Acta Neurol Scand* 2018;00:1-8.
- Tomassini V, Fanelli F, Prosperini L, et al. Predicting the profile of increasing disability in multiple sclerosis. *Multiple Sclerosis Journal*. 2019;25(9):1306-1315.