Smoking exposure and Multiple Sclerosis in Sardinia

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Background. Genetic and environmental factors have an important role in multiple sclerosis (MS) susceptibility and, specifically, smoking has been consistently associated with an increased risk for MS and a worse prognosis.[1] The influence of passive smoking on MS development is also debated.

Aim. The study was aimed to evaluate the influence of active and passive smoking on MS risk in Sardinia, an island characterized by a very high frequency of the disease and a homogeneous genetic background. [2]

Methods. MS patients, according to the McDonald 2010 criteria,[3] and healthy controls, were recruited. Active and passive smoking exposure was assessed by the culturally adapted Italian version of the self-reported questionnaire used in the Nurses 'Health Study of the Harvard University.

The Chi Square test or Mann-Whitney U-test were used, respectively, for intergroup comparisons of smoking exposure categorical or quantitative variables.

Results.

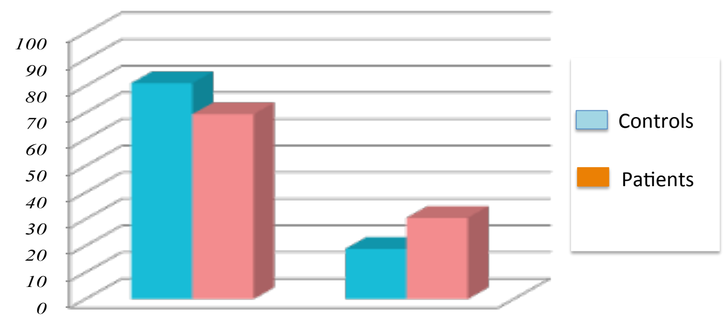
	MS patients (206)	Healthly Controls (200)
Female	134 (65%)	136 (68%)
Mean Age (years)	46 ±8.2	51 ±10.5
Smoking Habits	62 (30%)	38 (19%)

No difference in the age of smoking habits between two groups

- Maternal smoking during pregnancy
- Parental smoking at home

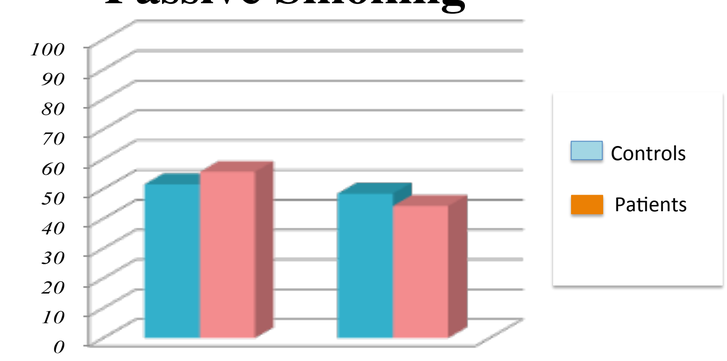
were not significantly associated to MS

Active Smoking



p. 0,007

Passive Smoking



p. 0,5

Conclusion. Our study suggests that attitude to tobacco smoking is linked to MS also in Sardinia. However, further data are needed to better define its possible role in the complex interplay between genetic and environmental factors.

References: 1. Sundstrom P, et Al. Mult Scler. 2008 Sep;14(8):1031-5. 2. Lampis R, et Al. Hum Mol Genet. 2000 Dec 12;9(20):2959-65. 3. Polman CH, et Al. Ann Neurol.;69:292-302.

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