Smokers with multiple sclerosis are more likely to report comorbid autoimmune diseases.

BACKGROUND/AIMS: Smoking is a risk factor for multiple sclerosis (MS) and autoimmune disease, and might explain an increased risk of comorbid autoimmune disease (CAD) in MS. We compared the risk of CAD in smokers and nonsmokers with MS.

METHODS: Participants enrolled in the North American Research Committee on Multiple Sclerosis Registry reported their smoking status, the presence of CAD and the year of diagnosis. We used multivariable logistic regression to determine the independent association between smoking and CAD. We also compared the risk of developing a CAD in current smokers versus never-smokers who did not report any CAD at MS onset, using a proportional hazards model.

RESULTS: Among 8,875 participants reporting comorbidities and smoking status, 1,649 (18.5%) reported a CAD. In a multivariable logistic model, ever-smokers had increased odds of reporting a CAD (odds ratio: 1.22; 95% CI: 1.08-1.38). Among the 7,830 participants without a CAD at onset of MS who reported their smoking status, including the age at which they started smoking, 3,035 (36.8%) currently smoked, while 3,805 (48.6%) never smoked. After adjustment, smokers had an increased risk of developing any autoimmune disease (hazard ratio: 1.23; 95% CI: 1.08-1.41) after MS onset.

CONCLUSION: Smoking is associated with an increased risk of CAD in MS.

DOI 10.1159/000323948
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Alternate Journal: Neuroepidemiology
PubMed ID: 21282965
PubMed Central ID: PMC3047764
Grant List: K12 HD04909 / HD / NICHD NIH HHS / United States