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Letter

Smoking, Obesity, and Risk of Primary Sjögren Syndrome

To the Editor:

I read the paper by Servioli et al[1] conducting a 1:3 case-control study to evaluate the association between smoking status and primary (p-) Sjögren syndrome (SS). ORs (95% CIs) of current and former smokers compared to never smokers for pSS were 0.34 (0.14–0.85) and 1.27 (0.80–2.03), respectively. In contrast, there was no significant association of smoking status with antinuclear antibody, anti-SSA, anti-SSB, or rheumatoid factor positivity. Further, the OR of obesity for pSS did not reach the level of significance. Although the mechanism of the association did not become clear, current smokers presented lower risk of pSS. The authors adopted a conditional logistic regression analysis, and each OR was adjusted by sex and age. I have some concerns about their study.

First, Mofors et al[2] also conducted a 1:5 case-control study to investigate the association between cigarette smoking and subsequent development of pSS. They likewise adopted a conditional logistic regression analysis, and OR (95% CI) of current smoking at diagnosis for pSS was 0.37 (0.26–0.53). In addition, OR (95% CI) of ex-smokers who had started 30 years prior to diagnosis for pSS was 2.01 (1.22–3.30). They speculated that smoking had a protective effect on pSS, or that early symptoms of pSS might affect smoking habits, and smoking discontinuation presented a risk of pSS. In any case, causal association may be complicated and risk assessment with a dose-response relationship should be conducted in further studies.

Second, McCoy et al[3] evaluated the association between smoking and SS in patients with rheumatoid arthritis (RA). The adjusted OR (95% CIs) of current compared to never smokers for SS was 0.20 (0.06–0.65). In addition, adjusted ORs (95% CI) of female sex and age for SS were 2.70 (1.18–6.14) and 3.75 (1.23–11.4), respectively. Regarding the pathophysiology of primary and secondary SS, Mavragani and Moutsopoulos stated that the "presence of an underlying autoimmune disease does not exclude the classification of pSS once the proposed criteria are fulfilled."[4] This means that there is no need for splitting patients into primary and secondary SS as independent diseases. McCoy et al[3] clarified that current smoking was inversely related to SS in patients with RA, although aging and female sex were risk factors of SS. Ye et al[5] conducted a metaanalysis in patients with RA and found a population attributable fraction value of smoking and excess BMI for RA of 14.0% and 14.7%, respectively. It is possible that patients with RA are recommended to stop smoking to keep the efficacy of their treatment. Taken together, current smokers with RA may have some specific reasons for maintaining their smoking habits.

Finally, the inverse relationship between smoking and pSS should be verified by prospective/intervention studies, examining the dose-response relationship and the effect of smoking cessation on subsequent risk reduction of pSS incidence.

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The author declares no conflicts of interest relevant to this study.

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