

Dr. Berti et al reply

We read with interest the comment of Dr. Kawada¹ on our article that showed an inverse association between current smoking status and primary (p-) Sjögren syndrome (SS), and no association between obesity and pSS.²

The relationship between smoking and the development of systemic autoimmune diseases has been explored by numerous authors. For some diseases such as rheumatoid arthritis (RA), the link appears well established, whereas for others the relationship is more complex. As Dr. Kawada comments, 2 more recently published articles, using even larger numbers of patients than our population-based cohort on the relationship between smoking and pSS³ and on SS among patients with RA,⁴ confirmed the main finding of our study (i.e., the negative correlation between current smoking and SS); they also added other variables of potential interest such as the temporal smoking patterns preceding pSS diagnosis³ and the association of age and female sex with SS in RA.⁴ The relationship between smoking and disease occurrence may hold in both primary and secondary SS.⁴ It is our view that these epidemiological associations may provide some insight into the pathogenesis of disease and require further study at the genomic and proteomic level.

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REFERENCES

1. Kawada T. Smoking, obesity, and risk of primary Sjögren syndrome. *J Rheumatol* xxxxxxxx.
2. Servioli L, Maciel G, Nannini C, et al. Association of smoking and obesity on the risk of developing primary Sjögren syndrome: a population-based cohort study. *J Rheumatol* 2019;46:727-30.
3. Mofors J, Björk A, Richardsdotter Andersson E, et al. Cigarette smoking patterns preceding primary Sjögren's syndrome. *RMD Open* 2020;6:e001402.
4. McCoy SS, Greenlee RT, VanWormer JJ, Schletzbaum M, Bartels CM. Smoking associated with reduced odds of Sjögren's syndrome among rheumatoid arthritis patients. *Scand J Rheumatol* 2021 Jun 25 (Epub ahead of print).