

## Sjögren's syndrome in Systemic Sclerosis: impact on oral features

Dear Editor,

We read with great pleasure the interesting comments of Parat et al. on "Sjögren's syndrome: an important confounder in evaluation of oral features in systemic sclerosis" (Parat et al., 2020). The authors highlight some aspects that we would like to address.

The aim of our study (Gomes da Silva et al., 2019) was to evaluate the oral features of patients diagnosed with systemic sclerosis (SSc), and salivary gland function was one among several the aspects being assessed. It is widely known that xerostomia is a common symptom in SSc patients, and we planned to check its association with Sjögren's syndrome (SjS), among other aspects. The SSc patients did not have SjS or any other autoimmune disease diagnosis before entering the study, so biopsy and other clinical tests were performed according to Vitali et al. (2002). SjS-related hyposalivation may promote severe oral impairment, presenting a higher risk of dental caries than other causes of hyposalivation (Berman et al., 2019). Nevertheless, SjS does not seem to be a risk factor for periodontal disease (Marse et al., 2019), which was extensively evaluated in the current study.

Interestingly, it was previously not clear if dental caries and periodontal disease were influenced by SjS associated with SSc, and we failed to observe any difference (DMFT,  $p=0.261$ ; periodontitis,  $p=0.07$ , data not shown). One major study on oral aspects of SSc ( $n=163$ ) also included possible SjS patients and could find that decreased saliva production was related to SjS-related antibodies, even though a routine evaluation for SjS was not performed (Baron et al., 2015). Similar to our results, they also observed that SSc disease type was not associated with the salivary flow rate. Besides, Knas et al., 2014 have also included SjS individuals among SSc patients, and they compared the exocrine gland activity parameters among the diffuse and limited forms of SSc. On the other hand, they did not compare SSc/SjS and SSc/noSjS, somewhat limiting the contrast with the present data.

Our study was performed in a public University hospital in Brazil, and all patients and controls presented similar limited socioeconomic status, impairing the comparison of this point with disease features. Considering the evaluated aspects of SSc (oral telangiectasia, reduced mouth opening, buccal mucosa crenation, tongue depapilation, dental erosion, severity and extension of periodontitis, limitation and assistance to dental brushing and DMFT index), only tongue depapilation and DMFT could be eventually impacted by SJS-related hyposalivation, but it was not observed (SSc/SJS x SSc/noSJS, tongue depapilation,  $p=0.083$ , DMFT,  $p=0.261$ , data not shown). Inasmuch, we could observe a specific pattern of periodontal involvement, characterized by a more severe and generalized disease with reduced gingival bleeding index and higher gingival recession and periodontal attachment loss. In conclusion, we consider that including SJS patients among SSc individuals may not limit the analysis of the oral features, depending on the research objective.

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## References

1. Parat, K., Radic, M., Perkovic, D., Biocina Lukenda, D., Martinovic Kaliterna, D (2020). Sjögren's syndrome: an important confounder in evaluation of oral features in systemic sclerosis. *In press*.
2. Gomes da Silva, G.S., Melo, M.L.M, Leão, J.C., Carvalho, A.T., Porter, S., Duarte, A.L.B.P., Dantas, A.T., Gueiros, L.A (2019). Oral features of systemic sclerosis: A case-control study. *Oral Diseases*. 25(8):1995-2002. doi: 10.1111/odi.13174.
3. Vitali, C., Bombardieri, S., Jonsson, R., Moutsopoulos, H. M., Alexander, E. L., Carsons, S. E., ... Weisman, M. (2002). Classification criteria for Sjögren's syndrome: A revised version of the European criteria proposed by the American-European Consensus Group. *Annals of the Rheumatic Diseases*, 61(6), 554-558. doi: 10.1136/ard.61.6.554
4. Berman, N., Vivino, F., Baker, J., Dunham, J., Pinto, A. (2019). Risk Factors for Caries Development in Primary Sjogren Syndrome. *Oral Surgery Oral Medicine*

- Oral Pathology Oral Radiology, 128(2), 117-122. doi: 10.1016/j.oooo.2019.04.011.
5. Maarse, F., Jager, D.H.J., Alterch, S., Korfage, A., Forouzanfar, T., Vissink, A., Brand, H.S. (2019). Sjögren's syndrome is not a risk factor for periodontal disease: a systematic review. *Clinical and Experimental Rheumatology*, 37 Suppl 118(3):225-233.
  6. Baron, M., Hudson, M., Tatibouet, S., Steele, R., Lo, E., Gravel, E., ... Gornitsky, M. (2015). Relationship Between Disease Characteristics and Orofacial Manifestations in Systemic Sclerosis: Canadian Systemic Sclerosis Oral Health Study III. *Arthritis Care and Research (Hoboken)*, 67(5), 681-690. doi: 10.1002/acr.22490.
  7. Knaś, M., Zalewska, A., Waszkiewicz, N., Szulimowska, J., Dziezciół, J., Sierakowski, S., & Waszkiel, D. (2014). Salivary: flow and proteins of the innate and adaptive immunity in the limited and diffused systemic sclerosis. *Journal of Oral Pathology & Medicine*, 43(7), 521–529. <https://doi.org/10.1111/jop.12166>