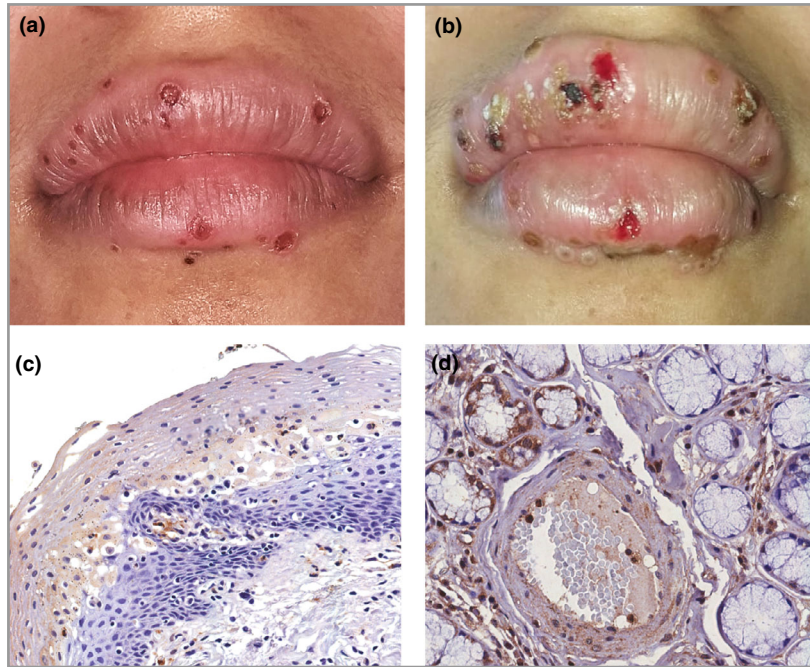



Oral vesiculobullous lesions as an early sign of COVID-19: immunohistochemical detection of SARS-CoV-2 spike protein

DOI: 10.1111/bjd.19569



DEAR EDITOR, A 23-year-old woman presented with vesiculobullous lesions in the lips with an erythematous halo (a, b). She also presented with fever and dry cough starting 3 days before. Polymerase chain reaction for SARS-CoV-2 was positive. Treatment with systemic dexamethasone resulted in complete remission of the lesions by the eighth day. Lip biopsy showed moderate lymphocytic infiltrate and microvascular thrombosis. Immunohistochemistry for the SARS-CoV-2 spike protein was positive in inflammatory endothelial cells and keratinocytes, and acinar and ductal cells of the minor salivary glands (c, d). Herpes simplex virus (HSV)-1, HSV-2, human herpesvirus-3 and cytomegalovirus were negative. Previous studies reported oral lesions in patients with COVID-19, but our group demonstrated microvascular thrombi by histology.^{1,2} To our knowledge, this is the first report showing the SARS-CoV-2 spike protein in oral lesions of patients with COVID-19.

C.D. Soares ,^{1,3} A. Mosqueda-Taylor,² M.G.F. de Carvalho³ and O.P. de Almeida¹

¹University of Campinas, Piracicaba, São Paulo, Brazil; ²Health Care Department, Universidad Autónoma Metropolitana, Xochimilco, Mexico; and ³Laboratório de Citopatologia, Private Service, Natal, RN, Brazil
Email: ciro.dss@gmail.com

References

- 1 Martín Carreras-Presas C, Amaro Sánchez J, López-Sánchez AF, et al. Oral vesiculobullous lesions associated with SARS-CoV-2 infection. *Oral Dis* 2020; <https://doi.org/10.1111/odi.13382>.
- 2 Soares CD, Carvalho RA, Carvalho KA et al. Letter to Editor: Oral lesions in a patient with Covid-19. *Med Oral Patol Oral Cir Bucal* 2020; **25**:e563–4.

Funding sources: none.

Conflicts of interest: The authors declare they have no conflicts of interest.