

# Dysgeusia and COVID-19: the Importance of the Dentist in the Diagnostic

## Disgeusia y COVID-19: La Importancia del Dentista en el Diagnóstico

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**ABSTRACT:** Dysgeusia is understood as changes in the perception of taste in patients infected with COVID-19 and has been frequently observed in the early stages of the disease. Along with the causes of dysgeusia, we can mention the correlation with infectious conditions, being of importance for the differential diagnosis. Dysgeusia can be considered one of the first manifestations of COVID-19, being an important contribution in the search for solutions regarding early diagnosis and treatment, in addition to its hospital and laboratory application.

**Keywords:** COVID-19; Diagnostic; Dysgeusia; Taste disorders.

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### Cover Letter

Sir, the new coronavirus pandemic was declared a state of public health emergency of international interest by the World Health Organization and, subsequently, called COVID-19 (Meng *et al.*, 2020).

Among the symptoms of this disease, changes in the perception of taste in infected patients, which is also called dysgeusia (Giacomelli *et al.*, 2020), have frequently been observed in early stages.

Along with the causes of dysgeusia, we can mention the correlation with infectious conditions, such as influenza, tonsillitis, and sinusitis, in addition to the relationship with systemic diseases, such as diabetes mellitus. Recently, authors have reported its occurrence as an adverse effect of cancer therapy (Hovan, *et al.*, 2010).

Studies indicate that disorders of the olfactory system may be related to taste disorders in a concomitant way. According to Giacomelli *et al.*, in the

Department of Infectious Diseases of Hospital L. Sacco, Milan, Italy, of 88 patients, 33.9 % reported at least one taste or olfactory disorder and, 18.6 %, both. Taste changes were more frequent (91 %) before hospitalization. Thus, the report of changes in the perception of taste by patients can be considered the first oral manifestation of SARS-CoV-2 infection (Vinayachandran & Balasubramanian, 2020).

Recent studies indicate the presence of viral load in the saliva collected from most infected patients (Sabino-Silva *et al.*, 2020). Saliva is the main fluid component of the external environment of taste receptor cells (Xu *et al.*, 2020). According to the study by Xu *et al.*, there is a potentiated expression of the angiotensin-converting enzyme 2 (ACE2), responsible for the entry of the virus into the host cell through binding with SARS-CoV-2, in the mucosa of the oral cavity, more specifically in the epithelial cells of the tongue, where there are taste buds, responsible for the identification of flavors.

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However, it is important to note that, previously to the diagnosis of dysgeusia as a symptom inherent to the infection of the new coronavirus, clinical condition of xerostomia and other viral or bacterial infections should be investigated, since the quantity and quality of the patient's saliva are also considered factors involved in taste sensitivity (Matsuo, 2020).

Therefore, dysgeusia can be considered an oral manifestation of COVID-19, being an important contribution in the search for resolutions regarding early diagnosis and treatment, in addition to its application in the hospital and laboratory.

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**RESUMEN:** La disgeusia se entiende como cambios en la percepción del gusto en pacientes infectados por COVID-19 y se ha observado con frecuencia en las primeras etapas de la enfermedad. Junto a las causas de la disgeusia, podemos mencionar la correlación con patologías infecciosas, siendo de importancia para el diagnóstico diferencial. La disgeusia se puede considerar como una de las primeras manifestaciones del COVID-19, siendo un aporte importante en la búsqueda de soluciones en cuanto al diagnóstico y tratamiento precoces, además de su aplicación hospitalaria y de laboratorio.

**PALABRAS CLAVE:** COVID-19, diagnóstico, disgeusia, trastornos del gusto.

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