

## Sensory changes in the oral cavity of the older adult

### Cambios sensoriales en la cavidad oral del adulto mayor

ROESCH-RAMOS, Laura†, LEDESMA-VELÁZQUEZ, Ma. del Pilar, MORA-SÁNCHEZ, Aura Leonora and MORENO-MARÍN, Flora

ID 1<sup>st</sup> Author: *Laura, Roesch-Ramos* / ORC ID: 0000-0003-0188-797X, Researcher ID Thomson: Q-8349-2016, CVU CONACYT ID: 324897

ID 1<sup>st</sup> Co-author: *Ma. del Pilar, Ledesma-Velázquez* / ORC ID: 0000-0002-8670-0328

ID 2<sup>nd</sup> Co-author: *Aura Leonora, Mora-Sánchez* / ORC ID: 0000-0002-6356-7720, Researcher ID Thomson: GZL-8656-2022, CVU CONAHCYT ID: 321805

ID 3<sup>rd</sup> Co-author: *Flora, Moreno-Marín* / ORC ID: 0000-0003-0080-2364, Researcher ID Thomson: GZL-8707-2022, CVU CONAHCYT ID: 421753

DOI: 10.35429/JNT.2023.17.7.19.22

Received January 30, 2023; Accepted June 30, 2023

#### Abstract

The aging of the population poses several challenges and opportunities in various areas, including health, economic and social care and in this case the aging of the oral cavity is a natural process that involves a series of structural, functional and physiological changes. Within the aging process, sensory changes occur in the oral cavity that can affect the perception and oral function of people. As part of the aging process, sensory changes occur in the oral cavity that can affect perception and oral function. Among the most outstanding are: Ageusia, Hypogeusia, Dysgeusia, Dysphagia, Xerostomia and Dental hypersensitivity. Objective of the study: To determine the most frequent sensory changes in the oral cavity of the elderly. Methodology: Type of observational and cross-sectional study. A convenience sampling was carried out with the prior informed consent of each of the patients. The sample consisted of a total of 75 elderly patients between 60 and 88 years of age who attended the university facilities, to whom a survey was applied by means of a digital form of 20 items in order to know the most frequent sensory changes in the oral cavity of the elderly and then the data were processed. Results: Of the 100% of the patients attended, 90.66% presented some sensory change in the oral cavity, the least found in patients between 60 and 88 years of age with 2.66% were Dysgeusia and Dysphagia. With 6.66% of the total population we found Ageusia followed by Hypogeusia (8%). Eleven percent of the population presented partial or total Xerostomia and 61.33% dental hypersensitivity, this being the most frequent.

**Ageusia, Hypogeusia, Dysgeusia, Dysphagia, Xerostomia and Hypersensitivity**

#### Resumen

El envejecimiento de la población plantea varios desafíos y oportunidades en diversas áreas, incluyendo la salud, la economía y la atención social y en este caso el envejecimiento de la cavidad oral es un proceso natural que involucra una serie de cambios estructurales, funcionales y fisiológicos. Dentro del proceso de envejecimiento, se producen cambios sensoriales en la cavidad oral que pueden afectar la percepción y la función oral de las personas. Dentro de los más destacados se tienen registrados: Ageusia, Hipogeusia, Disgeusia, Disfagia, Xerostomía y Hipersensibilidad dental. Objetivo del estudio: Determinar los cambios sensoriales más frecuentes en la cavidad oral del adulto mayor. Metodología: Tipo de estudio observacional y transversal. Se realizó un muestreo por conveniencia y con el previo consentimiento informado de cada uno de los pacientes. La muestra quedó conformada por un total de 75 pacientes adultos mayores entre 60 y 88 años de edad que acudieron a las instalaciones universitarias, a los cuales se les aplicó una encuesta por medio de un formulario digital de 20 ítems con la finalidad de conocer los cambios sensoriales más frecuentes en la cavidad oral del adulto mayor y posteriormente se procesaron los datos. Resultados: Del 100% de los pacientes atendidos, el 90.66% presentaron algún cambio sensorial en la cavidad oral, siendo los menos encontrados en pacientes entre 60 y 88 años de edad con un 2.66% la Disgeusia y la Disfagia. Con un 6.66% del total de la población nos encontramos a la Ageusia seguida de un 8% de la Hipogeusia. El 11% de la población presentó Xerostomía parcial o total y el 61.33% Hipersensibilidad dental siendo esta la de mayor frecuencia.

**Ageusia, Hipogeusia, Disgeusia, Disfagia, Xerostomía y Hipersensibilidad dental**

**Citation:** ROESCH-RAMOS, Laura, LEDESMA-VELÁZQUEZ, Ma. del Pilar, MORA-SÁNCHEZ, Aura Leonora and MORENO-MARÍN, Flora. Sensory changes in the oral cavity of the older adult. Journal of Nursing Techniques and Health. 2023. 7-17:19-22.

† Researcher contributing first author.

## Introduction

In Mexico, as in many other countries, an increase in the population of older adults has been observed due to various factors, such as improved living conditions, advances in medical care and technological advances mainly in the area of health sciences that make the population surpass the average age with high life expectancy.

The ageing of the population poses several challenges and opportunities in various areas, including health, economic and social care and in this case the ageing of the oral cavity is a natural process that involves a series of structural, functional and physiological changes.

These changes can affect oral health and functionality in a variety of ways and some of them are changes in dental structures such as tooth wear, loss of dental organs, gingival recessions, oral mucosal lesions, changes in the Temporomandibular Joint and some of them can be sensory changes or disorders.

As part of the ageing process, sensory changes occur in the oral cavity that can affect perception and oral function. Among the most prominent of these are

- Ageusia: This is the complete loss of the ability to perceive any type of taste sensation in the mouth. This condition can be caused by various reasons such as neurological problems, hormonal changes, infections, nutritional deficiencies, medication and high consumption of substances such as tobacco or alcohol and ageing itself.
- Hypogeusia: This is the decrease in taste. With age, some people may experience a decrease in the ability to perceive flavours. This may be due to changes in the taste buds, xerostomia, medication and other factors.
- Dysgeusia: Dysgeusia is a taste disorder involving altered taste perception. Unlike ageusia, where there is a complete loss of the sense of taste, dysgeusia is characterised by a distortion or abnormal perception of tastes. People experiencing dysgeusia may have an unpleasant or

different taste sensation from what they are actually consuming (bad taste on the tongue).

- Dysphagia: Dysphagia is difficulty swallowing, which means that a person experiences problems passing food or liquid from the mouth to the stomach. Dysphagia can be caused by a variety of factors and can be temporary or a chronic problem.
- Xerostomia is a partial or total reduction in saliva production. It is a common condition in older adults. Saliva is essential for lubrication of the mouth, digestion and protection against tooth decay. Dry mouth can affect the ability to chew and swallow food and increase the risk of tooth decay.
- Hypersensitivity: Changes in tooth sensitivity that may increase with age due to wear of tooth enamel and exposure of the root surfaces of teeth caused by conditions such as attrition, erosion, abrasion or tooth decay, which can cause pain when eating or drinking cold, hot or sweet foods.

These sensory changes can have implications for the quality of life of older people, as proper food and nutrition are critical to overall health.

It is important for dental professionals to provide patients with appropriate oral care practices, make dietary adjustments according to individual needs can help mitigate some of these effects of ageing on the oral cavity and make patients aware of the conditions of their oral cavity.

## Aim of the study

To determine the most frequent sensory changes in the oral cavity of the elderly.

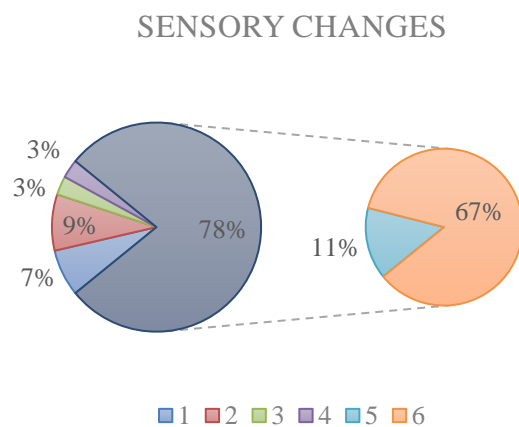
## Methodology

Type of observational and cross-sectional study. A convenience sampling was carried out with the prior informed consent of each of the patients.

The sample was made up of a total of 75 elderly patients between 60 and 88 years of age who attended the university facilities, to whom a survey was applied by means of a digital form of 20 items with the aim of finding out the most frequent sensory changes in the oral cavity of the elderly and the data was subsequently processed.

## Results

Of the 100% of the patients attended, 90.66% presented some sensory change in the oral cavity, with Dysgeusia and Dysphagia being the least frequently found in patients between 60 and 88 years of age with 2.66%. Ageusia was found with 6.66% of the total population, followed by Hypogeusia (8%). 11% of the population presented partial or total Xerostomia and 61.33% dental hypersensitivity, the latter being the most frequent. Graph 1.



**Graphic 1** Ageusia, 2 Hypogeusia, 3 Dysgeusia, 4 Dysphagia, 5 Xerostomia and 6 Dental hypersensitivity

## Discussion

Oral health in older adults is not only related to the presence of oral diseases, but also to factors such as quality of life, nutrition, general medical conditions and accessibility to health care services. Promoting oral health in this population involves addressing a variety of aspects to improve quality of life and prevent dental problems (Taboada, 2019).

To address these sensory disorders in the oral cavity of the older adult, it is important to conduct regular oral health assessments, adopt appropriate oral hygiene practices, and adjust diet according to individual needs.

In addition, it is essential to work closely with healthcare professionals, such as dentists, physicians and speech therapists, to ensure comprehensive and personalised care.

## Conclusions

Older adults have significant sensory changes in the oral cavity and most of these are characteristic of ageing. It is important for Dental Surgeons to help this population by explaining, raising awareness and sometimes providing palliative elements to counteract these sensory changes.

This study invites us to carry out a campaign to care for the oral health of older adults and to know how to attend to these ailments by making patients and their families aware of their situation.

## References

1. Reyes Obediente Fidela Mariana, Machado Ramírez Evelio F. Estrategia de educación permanente para la salud bucal del adulto mayor. *Revista Humanidades Médicas* [Internet]. 2020 Abr [citado 2021 Abr 25] ; 20(1): 107-123. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1727-81202020000100107&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1727-81202020000100107&lng=es). Epub 29-Abr-2020.
2. Taboada-Aranza O, Loeza-Galindo A, Hernández PRD. Caries y hábitos de higiene oral en un grupo de adultos mayores del Estado de México. *Rev ADM*. 2019;76(3):141-145.
3. Torrecilla-Venegas R, Castro-Gutiérrez I. (2020) Efectos del envejecimiento en la cavidad bucal; *Revista científica estudiantil, Universidad de ciencias medicas de la Habana*, 59 (278): e819. Disponible en: [http://www.rev16deabril.sld.cu/index.php/16\\_4/article/view/819](http://www.rev16deabril.sld.cu/index.php/16_4/article/view/819)

4. González RM, Hechavarría G, Batista NM, Cueto A. (2017) Los determinantes sociales y su relación con la salud general y bucal de los adultos mayores. Rev Cubana Estomatol; 54(1):60-71. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S0034-75072017000100006&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0034-75072017000100006&lng=es)
5. Pérez Fuentes, Maydel, & Bravo Seijas, Beatriz. (2018). Xerostomía en la población geriátrica del municipio Marianao. 2017. Gaceta Médica Espirituana, 20(3), 24-33. Recuperado de [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1608-89212018000300024&lng=es&tlng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1608-89212018000300024&lng=es&tlng=es).