Original Article

Publication History:
Published 1/1/2021

DOI:
10.5281/zenodo.4446132

Corresponding Author:
Dr Iram Fatima, Sir Ganga Ram Hospital Lahore
Iramfatimasarwatjabeen@gmail.com

Cite this article as:

© Copyright 2020
This is an open access article distributed under the terms of the Creative Commons Attribution License CC-BY 4.0., which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

PREVALENCE OF XEROSTOMIA AMONG THE PATIENTS PRESENTING IN THE OUTDOOR DEPARTMENT

AUTHORS:
1. DR. MUHAMMAD BILAL ILYAS, NISHTAR INSTITUTE OF DENTISTRY MULTAN
2. DR. KHASHIA MAMOON, FATIMA JINNAH MEDICAL COLLEGE LAHORE
3. DR. IRAM FATIMA, SIR GANGA RAM HOSPITAL LAHORE

ABSTRACT:
Xerostomia, also known as dry mouth, is dryness in the mouth, which may be associated with a change in the composition of saliva, or reduced salivary flow, or have no identifiable cause. This symptom is very common and is often seen as a side effect of many types of medication. This cross-sectional study was conducted among the patients presenting in the outdoor department of different hospitals. Name, age, gender, symptoms and presence of xerostomia were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. A total of 90 patients presenting in the emergency department were included in this study i.e., 45 males (50%) and 45 females (50%). The mean age of the patients was 29.45±3.22 years. Out of these patients, eight patients presented with xerostomia. Further workup was advised accordingly.

Keyword: Xerostomia
INTRODUCTION:
Xerostomia, also known as dry mouth, is dryness in the mouth, which may be associated with a change in the composition of saliva, or reduced salivary flow, or have no identifiable cause. This symptom is very common and is often seen as a side effect of many types of medication. It is more common in older people (mostly because this group tend to take several medications) and in persons who breathe through their mouths. Dehydration, radiotherapy involving the salivary glands, chemotherapy and several diseases can cause reduced salivation (hyposalivation), or a change in saliva consistency and hence a complaint of xerostomia. Sometimes there is no identifiable cause, and there may sometimes be a psychogenic reason for the complaint. Xerostomia is the subjective sensation of dry mouth, which is often (but not always) associated with hypofunction of the salivary glands. A drug or substance that increases the rate of salivary flow is termed a sialogogue. Hyposalivation is a clinical diagnosis that is made based on the history and examination, but reduced salivary flow rates have been given objective definitions. Salivary gland hypofunction has been defined as any objectively demonstrable reduction in whole and/or individual gland flow rates. An unstimulated whole saliva flow rate in a normal person is 0.3–0.4 ml per minute, and below 0.1 ml per minute is significantly abnormal. A stimulated saliva flow rate less than 0.5 ml per gland in 5 minutes or less than 1 ml per gland in 10 minutes is decreased. The term subjective xerostomia is sometimes used to describe the symptom in the absence of any clinical evidence of dryness. Xerostomia may also result from a change in composition of saliva (from serous to mucous). Salivary gland dysfunction is an umbrella term for the presence of xerostomia, salivary gland hyposalivation, and hypersalivation.

The differential of hyposalivation significantly overlaps with that of xerostomia. A reduction in saliva production to about 50% of the normal unstimulated level will usually result in the sensation of dry mouth. Altered saliva composition may also be responsible for xerostomia. Salivary flow rate
is decreased during sleep, which may lead to a transient sensation of dry mouth upon waking. This disappears with eating or drinking or with oral hygiene. When associated with halitosis, this is sometimes termed "morning breath". Dry mouth is also a common sensation during periods of anxiety, probably owing to enhanced sympathetic drive. Dehydration is known to cause hyposalivation, the result of the body trying to conserve fluid. Physiologic age-related changes in salivary gland tissues may lead to a modest reduction in salivary output and partially explain the increased prevalence of xerostomia in older people. However, polypharmacy is thought to be the major cause in this group, with no significant decreases in salivary flow rate being likely to occur through aging (1-3).

MATERIAL AND METHODS:
This cross-sectional study was conducted among the patients presenting in the outdoor department of different hospitals. Name, age, gender, symptoms and presence of xerostomia were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. The quantitative variables were presented as mean and standard deviation. The qualitative variables were presented as frequency and percentages.

RESULTS:
A total of 90 patients presenting in the emergency department were included in this study i.e., 45 males (50%) and 45 females (50%). The mean age of the patients was 29.45±3.22 years. Out of these patients, eight patients presented with xerostomia. Further workup was advised accordingly.

DISCUSSION:
A diagnosis of hyposalivation is based predominantly on the clinical signs and symptoms. The Challacombe scale maybe used to classify the extent of dryness. The rate of the salivary flow in an individual's mouth can also be measured. There is little correlation between symptoms and objective tests of
salivary flow, such as sialometry. This test is simple and noninvasive, and involves measurement of all the saliva a patient can produce during a certain time, achieved by dribbling into a container. Sialometry can yield measures of stimulated salivary flow or unstimulated salivary flow. Stimulated salivary flow rate is calculated using a stimulant such as 10% citric acid dropped onto the tongue, and collection of all the saliva that flows from one of the parotid papillae over five or ten minutes. Unstimulated whole saliva flow rate more closely correlates with symptoms of xerostomia than stimulated salivary flow rate. Sialography involves introduction of radio-opaque dye such as iodine into the duct of a salivary gland. It may show blockage of a duct due to a calculus. Salivary scintiscanning using technetium is rarely used. Other medical imaging that may be involved in the investigation include chest x-ray (to exclude sarcoidosis), ultrasonography and magnetic resonance imaging (to exclude Sjögren’s syndrome or neoplasia). This involves finding any correctable cause and removing it if possible, but in many cases it is not possible to correct the xerostomia itself, and treatment is symptomatic, and also focuses on preventing tooth decay through improving oral hygiene. Where the symptom is caused by hyposalivation secondary to underlying chronic disease, xerostomia can be considered permanent or even progressive. Saliva substitutes can improve xerostomia, but tend not to improve the other problems associated with salivary gland dysfunction. Parasympathomimetic drugs (saliva stimulants) such as pilocarpine may improve xerostomia symptoms and other problems associated with salivary gland dysfunction, but the evidence for treatment of radiation-induced xerostomia is limited. Both stimulants and substitutes relieve symptoms to some extent. Salivary stimulants are probably only useful in people with some remaining detectable salivary function. A systematic review compromising of 36 randomised controlled trials for the treatment of dry mouth found that there was no strong evidence to suggest that a specific topical therapy is effective. Improvements can take up to twelve weeks. However, pilocarpine is not always successful in improving xerostomia symptoms. The review also
concluded that there was little evidence to support the use of other parasympathomimetics in this group. Another systematic review showed, that there is some low-quality evidence to suggest that amifostine prevents the feeling of dry mouth or reduce the risk of moderate to severe xerostomia in people receiving radiotherapy to the head and neck (with or without chemotherapy) in the short- (end of radiotherapy) to medium-term (three months postradiotherapy). But, it is less clear whether or not this effect is sustained to 12 months postradiotherapy (4-6).

REFERENCES:


