



A Retrospective analysis of Oral Hygiene status among Geriatric Patients

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ABSTRACT

Geriatric patients need adequate oral health care which can greatly influence their overall general health. A large population of the elderly patients due to poor oral hygiene suffer from periodontal disease and root caries which can lead to edentulousness. The present study analysed the oral hygiene status among geriatric patients visiting dental hospital in an institution. A total of 86000 patient records were reviewed from June 2019 - April 2020. 233 geriatric patients were included in the study. The gender, age and Oral Hygiene Index- Simplified (OHI-S) of the patients were recorded and statistically analysed. The study consisted of 233 patients out of which 66 patients (28.6%) were females and 165 (71.4%) were males. The results showed that 31% of the patients had good oral hygiene, 60% showed fair and 9% of the patients showed poor oral hygiene. 34.6% of the females had good oral hygiene and 57.5% had fair oral hygiene. 30% of the males showed good oral hygiene and 60% had fair oral hygiene. Within the limits of the study, it was evident that most of the geriatric patients had fair oral hygiene status.



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health among geriatric patients is also very important. It is as important as maintenance of other body organs. Good oral hygiene reduces the risks of heart disease, strokes, cancers, etc. Since periodontal tissues get weaker as patient age, sufficient care and regular dental visits are essential for maintenance of oral hygiene (Panda *et al.*, 2014).

In case the oral hygiene is not maintained properly it disables the person to eat properly and hence the nutrition is affected as the patient won't be able to eat properly. Problems like decay, mobile tooth, attrition etc may be caused. Bad oral hygiene can also lead to systemic conditions (Johns and Managing Food Hygiene, 1995).

INTRODUCTION

Oral health can be defined as the state in which the oral cavity is free of pathogenic microbes and tooth decay, oral infections, sores, cancers, periodontal diseases and the normal physiological functions of the cavity should be intact. Maintenance of oral

Many studies have been conducted in the past few decades on oral hygiene status among geriatrics and also measures to improve them also. Brushing twice daily, morning and before sleep is considered as general self-care guidelines. However, it

is recommended to keep the oral cavity clean after every meal. Tooth brush cannot remove plaque entirely from the surfaces of the teeth as it cannot reach interdental, thus many interdental cleaning aids are available like dental floss and interdental brushes. The usage of the type of interdental cleaning aid depends upon the type of embrasure space (Ilhan *et al.*, 2015). The microorganisms play a significant role in oral health (Priyanka *et al.*, 2017). The commensal microflora can become opportunistic pathogenic flora due to improper oral hygiene maintenance.

Many studies revealed that many elderly patients were not able to maintain good oral hygiene owing to financial reasons and lack of care from children, negligence etc. Many measures and awareness was spread regarding this issue by highlighting the importance of maintenance of oral hygiene (Geisinger *et al.*, 2013) and its ill effects if not maintained properly. Many studies done previously have aided this study (Khalid *et al.*, 2016; Mootha *et al.*, 2016). However, there are only few available literatures on epidemiological studies related to oral hygiene of geriatric population. The aim of the present study was to analyse the oral hygiene status among the geriatric patients visiting an institution.

MATERIALS AND METHODS

The study setting is single centered focusing on elderly patients undergoing treatment at Saveetha Dental College and Hospitals. Ethical approval was obtained prior to the start of the study from the Institutional Ethical Committee (Ethical approval no. SDC/SIHEC/2020/DIASDATA/0619-0320). A total of 86000 patient records were reviewed from June 2019 - April 2020. 233 geriatric patients in the age group of 65-90 years were included in the study. The Oral Hygiene Index- Simplified (OHI-S) of the patients was recorded and statistically analysed. OHI-S interpretations were considered as Good:0-1.2; Fair: 1.3- 3 and Poor: 3.1- 6. The obtained data was entered in the excel sheet and was imported to SPSS version 20. Descriptive statistics was done to analyse the distribution of oral hygiene status among geriatric patients. Chi-square test was used to correlate the gender of the study population and oral hygiene status.

RESULTS AND DISCUSSION

The study consisted of 233 patients of which 28.6% (66 patients) were females and 165 patients (71.4%) were males. 31% (73 patients) had good oral hygiene, 60% (137 patients) had fair oral

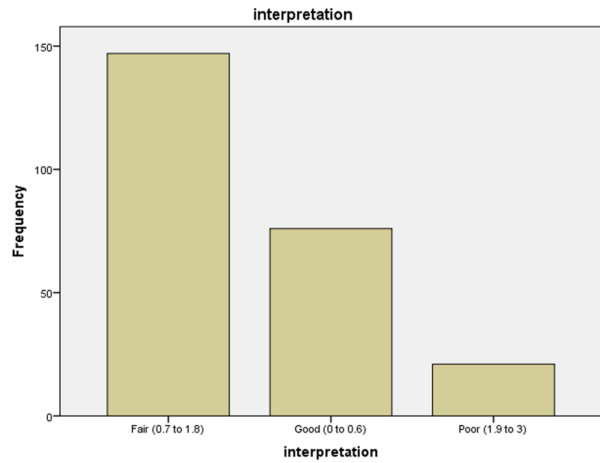


Figure 1: Distribution of the oral hygiene status of geriatric patients

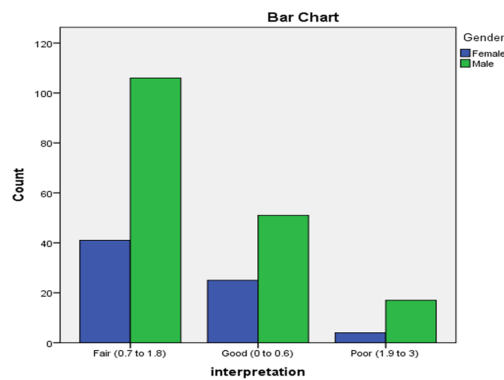


Figure 2: Bar chart representing the correlation of oral hygiene status and gender

hygiene and 9% (21 patients) had poor oral hygiene (Figure 1). X axis represents the oral hygiene status and Y-axis represents the number of patients.

Among 66 females 25 patients (34.6%) had good oral hygiene, 41 patients (57.5%) had fair oral hygiene and 4 patients (9%) had poor oral hygiene. Among males, 106 patients (60%) had fair oral hygiene, 51 patients (30%) had good and 17 patients (10%) had poor oral hygiene (Figure 2).

Gender and age plays a major role in determination of oral hygiene status. (Avinash *et al.*, 2017; Ramesh *et al.*, 2016a). The study also observed that as people age, oral hygiene declines and females have better oral hygiene when compared to males. This finding is in accordance with the other studies in which females had better hygiene than males. Good oral health and hygiene contributes to improvement and good overall general health which should be a right other than privilege (Shay and Ship, 1995). In this study 31% of the patients had good oral hygiene and 59% had fair and about 10% had poor oral hygiene which is comparable to previous literature avail-

able (Ingram *et al.*, 2005).

A similar study stated that males had better oral hygiene which is contradictory to our study. Major limitation of this study was that the study was single centered as only the patients visiting the outpatient department of the hospital were being considered (Ramesh *et al.*, 2019, 2017).

Oral hygiene reinforcement is needed especially to elderly patients. Oral hygiene aids can be provided to the older age group during health education programs (Thamaraiselvan *et al.*, 2015; Ravi *et al.*, 2017). In the recent years, some formulations incorporating herbs has proved to be more effective for routine periodontal maintenance which would be a better option for geriatric patients (Ramesh *et al.*, 2016b; Ramamurthy and Visha, 2018). In future, more prospective studies may be conducted to rule out oral diseases and oral health maintenance in geriatric patients in elderly (Ingram *et al.*, 2005; Alzoubi *et al.*, 2019). The limitations of this study mainly include the study being single-centered, geographical variations and small sample size. A study performed on a large population including different ethnicities can provide better results (Varghese *et al.*, 2015; Khalid *et al.*, 2017). Awareness about oral health in elderly population and importance of its maintenance to be brought to the public (Kavarthapu and Thamaraiselvan, 2018).

CONCLUSION

Within the limits of the study it was found that the majority of the geriatric patients had fair oral hygiene status. This study may help provide education about oral health maintenance, proper diet, brushing techniques and the importance of visiting the dentist for regular checkup among the elderly patients.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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