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ORIGINAL ARTICLE

Frequency of Gingival Recession and its Severity

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ABSTRACT

Objective: To estimate the frequency of gingival recession and its severity.
Study Design: Cross-sectional study
Place and Duration of Study: Department of Periodontics, Bakhtawar Amin Medical & Dental College, Multan and Sharif Medical & Dental College Lahore from 1st October 2020 to 30th September 2021.
Methodology: Three hundred patients with gingival recession were enrolled. Those patients with a minimum number of permanent twenty teeth and no periodontal therapy were included. The age of the patients was fixed between 15-55 years. A uniform pattern based examination of complete mouth was done. Occlusion trauma assessment was made through analysis of tooth mobility.
Results: The mean age was 21.2±2.3 years. Greater number of males such as 60.3% was reported for gingival recession. The age group 46-60 years had a significant difference between recession and without recession cases. The overall frequency of cases with recession was 40.66% and without recession was 59.3%.
Conclusion: Gingival recession is considered as multifactorial problem and appearance of it is always the result of more than one contributing factor.
Keywords: Recession, Gingival, Frequency, Esthetics, Smile

INTRODUCTION

Smile is the person' expression towards different emotions with movement and structure of lips and teeth and that determine how individual can perform or function in a society. An attractive smile is the most beautiful thing and considered as best ornament for face, also for human communication. Aesthetics of the smile can be determined through position, shape and color of the teeth. Nowadays, people are increasingly concerned regarding their appearance and smile.[1,2]

Mucogingival complex is the one in which mucogingival tissues have biomorphic integrity and maintenance of teeth attachment and to the soft tissue is also essential. If problem starts arising, it basically presents itself in two ways: pocket formation due to close disruption in mucogingival complex and gingival recession and gingival clefts can be formed as a result of open-disruption in mucogingival complex.[3,4] Gingival recession can be used to describe apical shift from its normal position of marginal gingiva from tooth crown to root surface.[5] Gingival recession is noticed many times by dentist unlike other dental conditions. It often leads to esthetic problem mainly when it creates anxiety about tooth loss and affects anterior teeth. Sometime it also creates hypersensitivity, cervical wear, root caries and erosion due to exposure surface exposure which increases the chances of dental plaque accumulation.[6]

Regardless of its frequent observation in subjects, severity and occurrence of gingival recession considerably vary between different populations. Hence, collection of detailed information is very important determine the epidemiology and tendency of condition, establishment of precautionary measures and for the identification of etiological factors. This study is design to find the frequency of gingival recession and the important factors related with the progression of gingival recession.

MATERIALS AND METHODS

This cross-sectional study was conducted at Department of Periodontics, Bakhtawar Amin Medical & Dental College, Multan from 1st October 2020 to 30th September 2021. A total of 300 patients were examined and selected for this study. Those patients with a minimum number of permanent twenty teeth and no periodontal therapy were included. The age of the patients was fixed between 15-55 years. Patients having periodontal therapy within last six months were excluded from the study. Data collection was performed through well designed questionnaire. Personal oral habits and hygienic disruption was detailed. William's- periodontal-probe, explore as well as CPI-probe was used for examination. A uniform pattern based examination of complete mouth was done. Clinical parameters according to standard protocol were recorded. Tooth misalignment was observed through tooth occlusal plane view. Positioning of each tooth was generated through comparison with regular arch curve. Faulty tooth brushing diagnosis was made by observing facial surface of the tooth. Tooth history including brushing and smoking was noted. Occlusion trauma assessment was made through analysis of tooth mobility. The data was analyzed by SPSS version 25.0 where frequencies and percentages were determined through chi square test and p value less than 0.05 was determined as significant.

RESULTS

The mean age was 21.2±2.3 years. Greater number of males such as 60.3% gingival recession while a less number of females 39.6% were reported. Within the all cases of gingival recession there were 40.6% those with mandibular incision being significantly ($p<0.05$) varied from maxillary molar as 14.6% followed by mandibular premolar (Table 1).

The overall frequency of cases with recession was 40.66% and without recession was 59.3%. There were more cases without recession in comparison with recession cases (Table 2).

Within the various age groups 15-25 years, there were no significant change within recession and non recession cases, however the age group 46-60 years had a significant difference between recession and without recession cases (Table 3).

The number of participants with mandibular arch was 66% while 44% were having maxillary arch as their main involvement. There were more cases with mandibular arch involvement (Fig. 1).

Table 1: Gingival recession distribution (n=300)

Gingival recession	No.	%
Males	181	60.3
Females	119	39.6
Mandibular incisions	122	40.6
Maxillary molar	44	14.6
Mandibular premolar	36	12
Maxillary incision & premolar	26	8.6
Mandibular molar	14	4.6
Maxillary canine	43	14.3
Mandibular canine	13	4.3

Table 2: Frequency of with recession and without recession cases

Gingival Recession	No.	%
With recession	122	40.66
Without recession	178	59.3

Table 3: Comparative age analysis within recession and no recession cases

Age (years)	With recession (N=122)	Without recession (N=178)	P-value
15-25	52 (42.7%)	73 (41%)	0.61
26-35	39 (31.9%)	47 (26.4%)	0.59
36-45	22 (18%)	35 (19.7%)	0.04
46-60	9 (7.4%)	23 (12.9%)	0.003

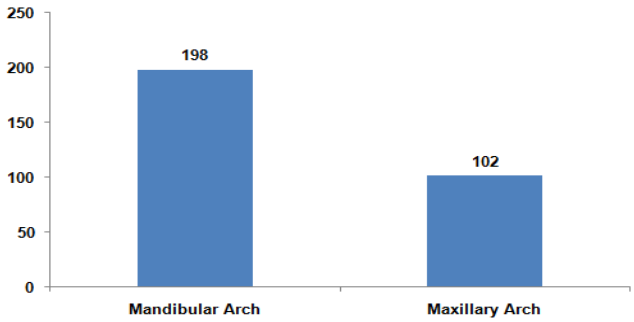

Fig 1: Comparison of cases with mandibular or maxillary arch

DISCUSSION

In modern world, dentofacial esthetics are greatly improved. Getting inspiration from beautiful faces and their smiles, people start getting alterations and modalities treatment to improve dentofactical esthetics.[7,12] Scientific evidence is also present that smile is considered as the most significant element in dentofacial esthetics. Present study was also designed to find the probable etiology and occurrence of gingival recession in 300 individuals within the age group of 15-60 years.

In the present study, 40.66% patients had gingival recession. Various studies have demonstrated the similar studies in the past.[13,17] Study conducted in Greece has showed the overall frequency of recession as 63%. Contrary, other studies reported much lesser frequency of this problem. This might be due to the difference in age groups and esthetics variance in different countries.[18] Recession relation with age was also found in the present study. Gingival recession occurrence may be because of longer period of exposure to agents that might cause this problem. This could also be localized in young patients and seemed to appear as isolated etiological factor.[19] Severe gingivitis was also observed in recession group as compared to without recession group. This can be due to the presence of plaque in recession group.

In modern world, with advancement in the knowledge of smile esthetics and cosmetic surgeries, smile is now considered more important now as to the ancient times. With more focus on this particular area/issue dentofacial esthetics are more advanced now and are sufficient to address the people problems timely and effectively.

CONCLUSION

Gingival recession is considered as multifactorial problem and appearance of it is always the result of more than one contributing factor. Awareness of oral hygiene maintenance at community level can be proved fruitful.

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