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PREVALENCE OF GINGVITIS IN PATIENTS VISITING BIBI ASEEFA DENTAL COLLEGE, LARKANA.

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ABSTRACT… Oral health is an important portion of overall healthiness which is attained by virtuous oral hygiene. Most common oral disease is gingivitis and its prime etiological reason is plaque and as well as calculus deposition leading to bleeding gums. Energies need to be fixated on raising inhabitant's consciousness of the importance of oral hygiene and on early diagnosis of gingival and periodontal problem. To evaluate the prevalence of gingivitis in patients visiting Bibi Aseefa Dental College, Larkana. **Study Design:** Cross-sectional study. **Setting:** Bibi Aseefa Dental College, Larkana. **Period:** From 4th March to 10th June 2018. **Materials and Methods:** 200 patients reporting to the outpatient department were involved in the study. The data was collected through questionnaire followed by examination of gingiva using gingival index of Loe and Silness with the help of dental mirror and probe. Data was analysed by Statistical Products and Service Solution (SPSS) version-16. **Results:** The males were 44.5% and females were 55.5%. Prevalence of gingivitis was 55%. Gingival status was evaluated as 36% mild, 15.5% moderate and 2% had severe type of gingivitis. 48% gingivitis was in males and 52% was in females and it was statistically not significant. **Conclusion:** Majority of patients who had complaint of gingivitis, were due to lack of maintenance of oral hygiene and those who maintain their oral hygiene were reported as normal health status.

Key words: Gingivitis, Gingival Index, Oral Health, Oral hygiene, Plaque.

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INTRODUCTION

Oral health is an important portion of overall healthiness which is attained by virtuous oral hygiene.[1,2] Oral diseases qualify as one of the foremost public health dilemma owing to their higher prevalence in general population.[3] Deprived oral hygiene is the core cause for the progress of oral diseases which severely disturb overall health.[4] Further etiological factors consist of gender, age, genetic tendencies, certain systemic conditions like pregnancy, puberty, hormonal changes, diabetes mellitus and menopause.[5] Deprived oral health possibly will initiate and potentiate certain systemic problems like stress, diabetes mellitus, cardiovascular diseases, low birth weight babies and rheumatoid arthritis etc.[6-8] Most common oral disease is gingivitis and its prime etiological reason is plaque and as well as calculus deposition leading to bleeding gums.[9-11] Three out of four people might hurt from gum diseases throughout their life time.[12] Gingivitis characterizes as painful, red, swollen inflamed bleeding gums. If gingivitis is left untreated it can lead to periodontal problems[13] and ultimately loss of teeth. Periodontal diseases also interfere with other systems of body.[6]

Results of a Pakistan's countrywide health survey disclosed that 36% of population cleaned their teeth once a day and 54% cleaned their teeth on alternative days / weekly or monthly.[14] Though there are diverse mechanical and chemical approaches recommended for improvement of oral health, but tooth brush and floss are generally acknowledged primary approach for get rid of plaque and calculus.[15] Epidemiologic studies show that gingivitis is abundant in inhabitants of children and adults worldwide. It has been

estimated that more than 82% of adolescents in the United States have obvious gingivitis.[16]

Energies need to be fixated on raising inhabitant's consciousness of the importance of oral hygiene and on early diagnosis of gingival and periodontal problem. A preventive and curative oral and dental health policy adapted to prevent and treat the primary oral health problems. Effective plaque control can ease enhancement in gingival and periodontal health and prevents tooth injury.[17] Brushing effectiveness be subject to diverse factors like type of brush either hard or soft, effective technique, time of brush and frequency.[18] Keeping in sight the severity and advancement of gingivitis, the present study will be carried out to assess the prevalence of gingivitis in patients visiting Bibi Aseefa Dental College Larkana, so that the burden of disease can be estimated and preventive measures can be taken properly by giving the proper oral hygiene through dental health education programs.

METHODOLOGY

The ethical approval was taken from ethical review committee of university. Descriptive cross-sectional study was carried out on 200 patients at Bibi Aseefa Dental College Larkana from 4th March to 10th June 2018. Written informed consent was taken from the participants. The convenient sampling technique was used to recruit the patients. The sample size was calculated using Raosoft online sample size calculator taking the margin of error 6.38% at 95% confidence interval using response distribution of 69%. The total sample size calculated was 200. The inclusion criteria were both male & female, age ≥15 years. The exclusion criteria were the patients wearing Orthodontic brackets, having any systemic disease, had scaling one month before examination and pregnant women. The data was collected through questionnaire followed by examination of gingiva using gingival index of Loe and Silness with the help of dental mirror and probe. Data was analysed by Statistical Products and Service Solution (SPSS) version-16. The frequency and percentage were calculated for qualitative variables like gender, cleaning of teeth, frequency of brushing, usage of dental aids, smoking status, and gingivitis status. Mean & standard deviation was calculated for quantitative variables like age. The chi square test was applied to check the severity of gingivitis in gender. The p-value ≤ 0.05 was considered significant.

RESULTS

The mean age was 28.59 + 11.97. The males were 44.5% and females were 55.5% (Table-I).

When asked for the cleaning of teeth 96% responded yes. Majority of population 47% were cleaning their teeth once a day followed by twice 42% and thrice 7% (Table-I).

When asked about the usage of dental aids, only 12.5% were using mouth wash and 6.5% were using tooth picks (Table-I).

When asked about the smoking status, most of our population was not smoking and 2% were using more than ten cigarettes per day (Table-I).

When asked about the treatment for gums was taken before 24% responded yes (Table-I)

Prevalence of gingivitis was 55% (Figure-1)

Gingival status was evaluated as 36% mild, 15.5% moderate and 2% had severe type of gingivitis. (Figure-2)

When the cross tabulation was done to evaluate the gingivitis in gender, 48% gingivitis in males and 52% in females was evaluated and it was statistically not significant. (Table-II)

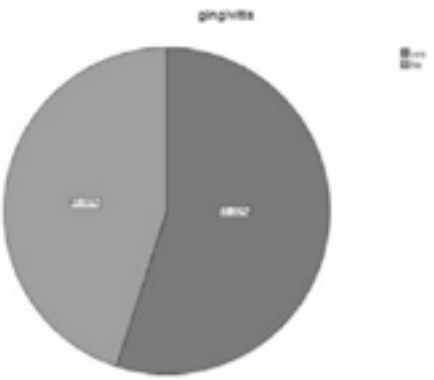

Figure-1. Prevalence of gingivitis

	Total No:200	%	Mean ± SD
Age			28.59±11.97
Gender			
Male	89	44.5	
Female	111	55.5	
Cleaning of Teeth			
Yes	192	96.0	
No	8	4.0	
Frequency of Brushing			
None	08	4.0	
Once	94	47.0	
Twice	84	42.0	
Thrice	14	7.0	
Dental AIDS			
Don't use	162	81.0	
Mouth wash	25	12.5	
Tooth pick	13	6.5	
Smoking			
No smoking	189	94.5	
Less than 5 number/day	4	2.0	
Less than 10 number/day	1	1.0	
Greater than 10 number/ day	6	2.0	
Gingival Treatment Before			
Yes	48	24.0	
No	152	76.0	

Table-I. Descriptive statistics of baseline characteristics

Gingivitis		Gender of patient		Total	P-Value
		Male	Female		
	Yes	53	57	110	
		48.2%	51.8%	100.0%	
	No	36	54	90	0.247
		40.0%	60.0%	100.0%	
Total		89	111	200	
		44.5%	55.5%	100.0%	

Table-II. Association of gingivitis with gender

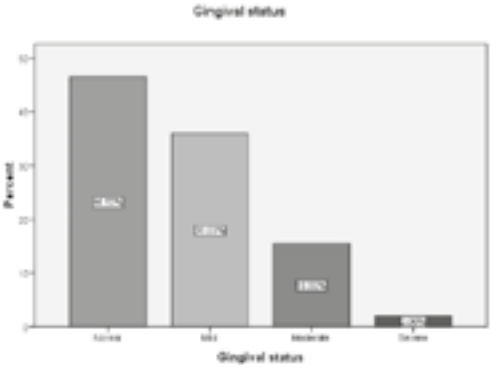

Figure-2. Frequency of gingival status

DISCUSSION

Oral diseases are one of the major public health challenge worldwide that disturbs person's oral as well as general health[18] and can be the leading reason of various diseases.[19,20] In this study the 55% population was suffered from gingivitis which may be comparable with the study conducted by Shahzad M and others[21] who also showed almost same prevalence of gingivitis among all patients, on the contrary the results are not in agreement with an-other study which showed 69% of the patients suffered from gingivitis. This is matching with National oral health survey which stated that only 28% of 12 years old, 26.5% of 15 year old, 16.8% of 35-44 years old and only 6.7% of patients aged 65 and higher were healthy. Since age was not a factor in assessing prevalence of gingivitis so this study did not compared prevalence among different age groups however it was noted that majority of the patients suffered from gingivitis.

Severity of gingival index according to Loe & Silness was categorized in to four groups from normal to severe. In our study the severity of gingivitis was categorized as mild gingivitis 36%, moderate 15% and severe 2%, which are not in agreement with the study conducted by Rajpar SP and others,[22] showed as mild inflammation was 24.57%, moderate inflammation was 56.29% and severe inflammation was 6% in the study sample. Out of the total sample 48% males and 52% females were suffering from gingivitis which is contradictory with the research of Ali S and others[23] where 53% of males and 47% of females suffered from gingivitis. Females suffered more from gingivitis as compared to males. This is contrary to a study conducted on Chinese adult inhabitants which presented no difference between gender based distribution of gingivitis.[24] One more study on American population presented males were affected more as compared to females.[25] However apart from few exceptions e.g. hormonal imbalance which exaggerate tissue response to local etiologic agents in females, gender based distribution of periodontal diseases is not very significant.[24] Another study which is not in agreement gender wise, the study conducted by Rajpar SP and others[22] showed

males affected more than females by gingivitis. The reason behind that could be due to different oral hygiene measures, different age groups and different sample size. This indicates that there is a lack of information for the patients as they do not get alarmed when ever there are signs of gingivitis. Hence a thorough oral educational plan needs to be implemented so that more information is given to the patients regarding common oral diseases. Emphasis should also be laid on patient motivation for improving oral hygiene by giving awareness to patients and changing their attitude and habit towards tooth brushing.

CONCLUSION

Majority of population from our locality cleaning their teeth routinely, even though gingivitis is highly prevalent, it might be due to not proper cleaning of oral cavity. Emphasis on oral hygiene instructions should be given and patients should be educated about awareness of gingivitis by arranging health education awareness program.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Benish Tufail	Introduction writing.	
2	Sajda Khuhawar	Discussion writing.	
3	Faisal	Helped in article manuscript, Topic Slection.	
4	Basit Ahmed Shaikh	Data collection from patients.	
5	Simran Raikinger	Formation of questionnaire and reference setting.	
6	Komal Talreja	Helped in data collection from including questionnaire and articles search.