

PREVALENCE OF MALOCCLUSION IN LETHRAR — A SUBURB OF ISLAMABAD

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ABSTRACT

The purpose of this study was to determine the frequency of the malocclusion in Lethrar, a suburb of Islamabad. Residents of this suburb have come from various parts of Pakistan and settled there. Malocclusion affects oral hygiene and functions and may cause temporomandibular joint (TMJ) dysfunction syndrome. 36 subjects, 28 male (77.7%) and 8 female (22.2%) between the ages of 12 years to 64 years participated in the study. They were examined at Rawal Institute of Health Sciences, Dental Hospital using standard examination protocol. Of the 36 subjects, 29 subjects (80.5 %) came from Punjab, 3 (8.3%) from Kashmir, one (2.7%) from Sindh, one (2.7%) from Baluchistan. Of the examined subjects, 32 (88.8%) had class I occlusion, 4 (11.1%) had class II, 18 (50%) subjects were with crowding of lower anterior teeth, and 2 (5.05%) experienced clicking on opening and closing the mouth.

Key words: Malocclusion, Class I, Class II, Class III, TMJ dysfunction

INTRODUCTION

There are few diseases related to malocclusion. The most common of these are gingivitis, periodontitis, caries, loss of teeth, and premature contacts leading to TMJ dysfunction syndrome. The most common cause of pain in the mouth is decayed teeth. Gingivitis and/or periodontitis are the source of low grade infection with moderate to severe pain, causing resorption of alveolar processes, leading to tooth mobility and loss of teeth.

Tooth mobility can be the source of premature contacts, causing TMJ clicking at an early stage and TMJ dysfunction Syndrome at late stage. A unilateral or bilateral cross bite can also lead to TMJ dysfunction syndrome, which can cause a constant, dull headache, although the pain may be referred to shoulder and neck and also to the arms. If referred to the left arm, the pain may be misdiagnosed as heart attack.

Posterior teeth are usually extracted due to advance decay or periodontitis. Multiple extractions of posterior and/or anterior teeth and also the grinding of the teeth can cause a decrease in vertical height leading to TMJ dysfunction and neuralgia that could be

treated by orthodontic means by increasing the vertical height with the fixed appliances. Almost all the patients were adult except one 12 year old who had normal occlusion.

METHODOLOGY

All the study subjects belonged to low socio-economic group. All the subjects were examined in the Rawal Institute of Health Sciences using standard examination protocol. Prior to examination consent of the patient was obtained.

They were assessed with regard to dental occlusion, anterior crowding and TMJ dysfunction and interviewed for their oral hygiene practices i.e. brushing and flossing. The data collected through examination, were recorded on the proformas designed for the study. The data were collected also for class I, class II, class III malocclusion, anterior crowding and TMJ dysfunction.

RESULT

Demographics of the subjects are shown in table 1. Frequency of malocclusion and brushing habits can be seen in tables 2 & 3. Gender distribution is visible in fig. 1.

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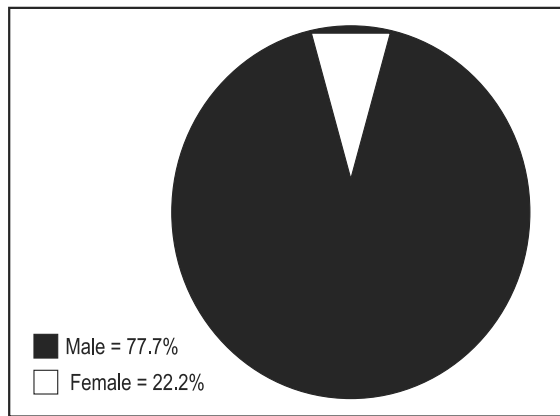


Fig 1: Gender distribution

TABLE 1: DEMOGRAPHICS OF THE SUBJECTS

Punjab			
Rawalpindi	4	Muree	4
Lahore	3	Multan	1
Mandi Bahaudin ...	1	Gujar Khan	1
Rawalakot	2	Simli Dam	1
Kahuta	2	Kotli satian	1
Chara	2	Jhand	1
Islamabad	5		
Khyber Pakhtoonkhwa			
D.I Khan	1	Charsada	1
Kashmir	2	Sindh	1
Balochistan	1		
Total	Male	28	77.7%
	Female	8	22.2%

TABLE 2: MALOCCLUSION

	Frequency	Percentage
Class I	32	89.9%
Class II	4	11.1%
Class III	0	0
TMJ dysfunction	2	5.05
Anterior Crowding	18	50%

TABLE 3: BRUSHING HABITS

Frequency	No. of Subjects	Percentage
Once daily	18	0%
Twice Daily	12	33.3%
Miswak	2	5.5%
Never	4	11.1%

On extra oral examination no significant abnormality was detected, salivary glands and cervico-facial lymph nodes were within normal limit. Clicking of joint was present in 2 (5.05%) subjects.

DISCUSSION

This is the first study in the Lethrar area. There has been no previous study of this area to compare the findings. It should be the responsibility of the city council to increase public awareness for dental health.

Oral health and normal occlusion contributes and enables an individual to eat, speak, socialize without active disease, discomfort or embarrassment and thus contributes to general health and well-being.

The results of this study show that subjects with class II malocclusion had gingivitis and periodontitis in advance stage as compared to the subjects with class I. The subjects in this study needed not only orthodontic treatment but also restorative, and prosthetic and periodontal treatment. All the subjects belonged to low socio economic class, and therefore were unable to pay for dental treatment, because of its high cost.

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