

COMPLICATIONS ON TEETH AND SUPPORTING STRUCTURES DURING ORTHODONTIC TREATMENT

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ABSTRACT

Aim - To know the Complications on teeth and supporting structures during orthodontic treatment among dental students

Methodology- A questionnaire is prepared consisting of 10 questions and given to 100 patients who has undergone orthodontic treatment.

Background-The brackets and bands provide for a rough surface which leads to increased plaque and calculus accumulation. Arch wires, brackets and bands can also lead to ulcerations in the oral mucosa. The Orthodontic tooth movement also leads to certain complications like root resorption, gingival enlargement, loss of tooth vitality etc. This is further complicated by the allergic tendencies of the patient to certain materials used in Orthodontic therapy

Reason - Hence it is imperative that the patient as well as the dentist is made aware of the various complications that can occur with Orthodontic treatment and how to deal with them.

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INTRODUCTION

Every treatment in the dental specialty has its own set of complications orthodontic therapy being no exception. Dental aesthetics are a key factor in overall physical attractiveness, which also contributes to self-esteem (1). This is one of the main reasons for patients to undergo Orthodontic treatment. Although Orthodontic treatment has many recognised benefits, including improvement in dental health, function, appearance, and self-esteem, nevertheless Orthodontic appliances can cause unwanted complications if adequate care is not taken during the treatment. It is important that the patients are aware of these potential risks, so that they can know their responsibilities and the expectations placed on them during the treatment. This ensures in achieving successful results without any adverse effects during and after completion of orthodontic treatment.

MATERIALS AND METHODS

A total of 100 patients were participated in this study and successfully completed the survey. Patients who were wearing braces were included in the survey. The questionnaire had a total of 10 questions. The responses were collected and analysed and the results were presented as tables and piecharts

1. Duration of wearing orthodontic braces
2. Reason of wearing orthodontic braces
a) Esthetics b) Functional
3. Did u find discolouration of teeth after wearing orthodontic appliance..?
a)yes. b) no
4. Did u feel loosening of the tooth after wearing orthodontic appliance..?
a) yes. b) no
5. Did u feel any pain in ur tooth during orthodontic treatment..?
a) yes b) no
6. Is it difficult to brush after wearing orthodontic braces.?
a)yes b)no
7. Do u have bleeding while brushing the teeth.?
a)yes b)no
8. Whether u have sensitivity while having food items.?
a)yes b)no
9. Do u have a bad odour in ur mouth after wearing orthodontic appliance.?
a)yes b)no
- 10 Did ur gums swallow after wearing orthodontic appliance.?
a)yes b)no

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RESULT

From the study we found that 95% of patients have pain during orthodontic treatment (fig 1)

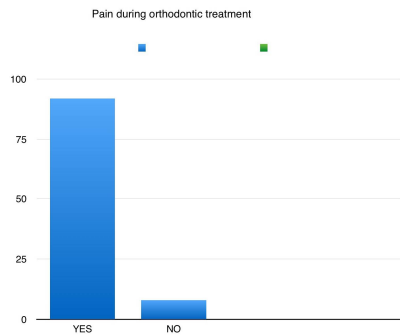


Fig 1

55% of the patient feeling loosening of tooth during orthodontic treatment (fig 2)

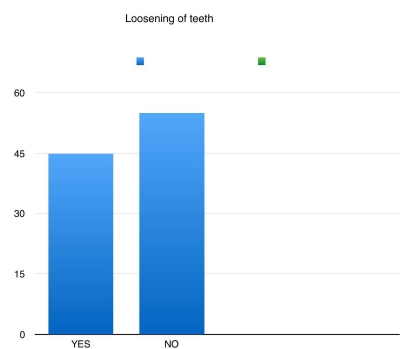


Fig 2

Among the responders 87% of the patient have difficulty in brushing while wearing orthodontic braces (fig 3)

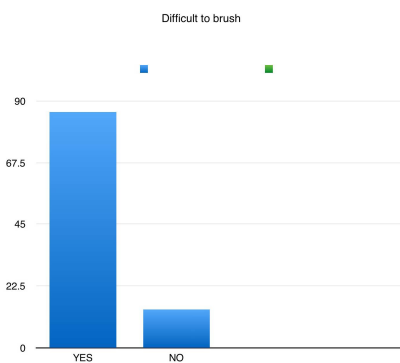


Fig 3

66% of the people undergo orthodontic for aesthetic purpose(fig 4)

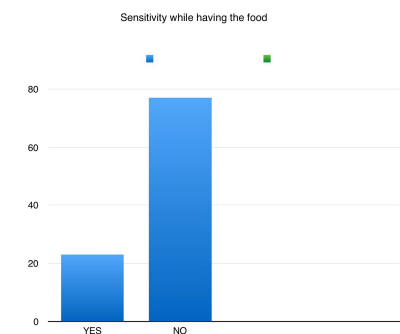


Fig 4

98% of the patient have discolouration of teeth after wearing orthodontic braces (fig 5)

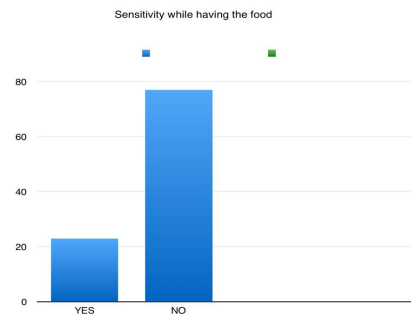


Fig 5

67% of the patient have swollen of gums after wearing orthodontic braces (fig 6)

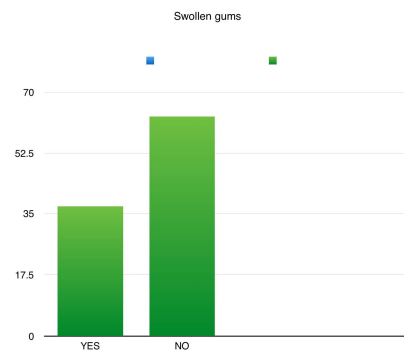


Fig 6

77% of the patient answered that they have sensitivity while having food (fig 7)

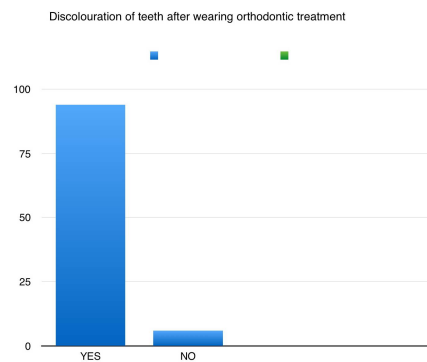


Fig 7

50% of patients had bleeding while brushing during orthodontic treatment (fig 8)

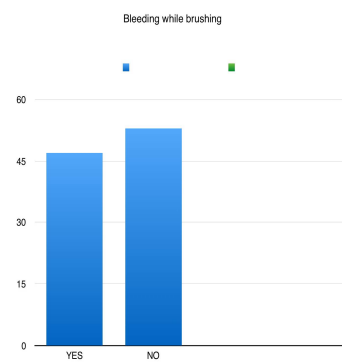


Fig 8

78% of patients had bad odour in mouth during orthodontic treatment (fig 9)

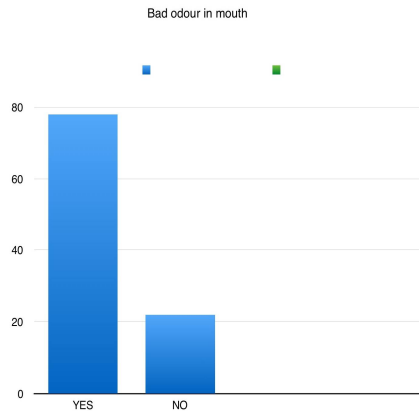


Fig 9

DISCUSSION

Orthodontic treatment helps in improving facial and dental aesthetics. Orthodontic treatment involves the usage brackets, bands, wires inside the oral cavity. During the course of treatment, proper care of the appliances by the patient and the Orthodontist is essential.

From our study it is shown that discolouration of tooth (93%), pain during orthodontic treatment (95%) and bad odour (77%) are the major complications on teeth and supporting structures during orthodontic treatment. They also felt difficulties in brushing and because of that the gums were swollen.

A high percentage of patients (95%) had pain during orthodontic treatment. Other studies reveals that Patients undergoing orthodontic treatment quite often complain about pain and discomfort during various stages of orthodontic treatment. Discomfort is expressed as unpleasant tactile sensations, feeling of constraint in the oral cavity, stretching of the soft tissues, pressure on the mucosa, displacement of the tongue, soreness of teeth and pain (1-4).

Patients may feel as if their teeth are getting loose and may see opening where no spaces existed before. This is perfectly normal, although sometimes can cause concern to the patient if not addressed and explained by the orthodontist prior to the treatment. In this study 55% of patients feel loosening of teeth during orthodontic treatment.

What you eat can also affect the kind of bacteria in the biofilm that collects on orthodontic appliances, whether fixed-in braces or removable clear aligners. Because of biofilm's relationship to tooth decay and gum disease, controlling it is at least as important, if not more so, during orthodontic treatment. Someone wearing braces typically has two to three times as much biofilm as someone without braces. Among the responders 87% of the patient have difficulty in brushing while wearing orthodontic braces.

Aesthetic improvement and psychological enhancement have been cited as justifications for orthodontic treatment. 66% of the people undergo orthodontic for aesthetic purpose Swollen gums from braces are usually due to how difficult it is to keep the area thoroughly clean as well as a response to metallic appliances within your mouth. 98% of the patient have discolouration of teeth after wearing orthodontic braces. These findings are consistent with other studies. In this study it is found that 77% of patients have sensitivity while eating food after orthodontic treatment, 78% of patients had bad odour in mouth during orthodontic treatment and 50% of patients had bleeding while brushing during orthodontic treatment

CONCLUSION

Patients undergoing orthodontic treatment experience pain and discomfort. Precaution should be taken during these procedures. A healthy dietary change was observed in patients as a response to fixed appliance. No significant change in the behaviour of the patients was observed during the orthodontic treatment but patients has undergone many difficulties like inability to brush properly, bad odour and sensitivity while eating

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