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Publication Cell:

Chief Editor

Gandhara University

Canal Road, University Town

Peshawar, Pakistan

Tel: +92-91-5619671-6

+92-91-5711151-3

Fax: +92-91-5844428

Visit Us:

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Email:

editor.sjgu@gandhara.edu.pk

sofia.kabir@gandhara.edu.pk



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CUT, CROWN, VENEER; COSMETICS VS ETHICAL DENTISTRY

Yasir Israr
Post graduate Trainee
Sardar Begum Dental College, Peshawar

The integration of technology into dental sciences has seen rapid surges in the past few decades. Reinventing the wheel might not be apt here, as the wheel is faster, more precise, easier to use by the dental industry. The introduction of CAD CAM in dentistry has revolutionized how most dental practices operate as it has increased the efficiency of the dental office manyfold. Same day deliveries, more precise adaptation of the prosthesis to the prepared tooth surface, and the introduction of new dental materials like zirconia and lithium disilicate providing better aesthetics^{1,2}. In some way this was supposed to be another machination to provide more convenient treatment options to patients. However, the ease of use with which quality products is more at the behest of the machine and artificial intelligence involved in the dental software than the dental operator, has led to a recent rise in lack of responsibility towards ethical dentistry³. The superior aesthetics of the new generation of crowns and veneers do well to mask a biomechanical deficiency on part of the dental operator in terms of providing a prosthetic, which provides harmony to the oro-facial function⁴. Improper technique, lack of experience in providing said dental care, and a generous amount of social media marketing is leading dentist to promote their version of cosmetic dentistry without any reasoning whether the patient really needs that treatment modality⁵. The mark of a well-trained clinician knows that the best treatment is sometimes no treatment at all. However, the ease with which an amateur dentist can cut healthy tooth structures and provide a “Hollywood smile” is putting more strain on the finances of the patients who are convinced wrongly. This causes more harm to the patient long term, as unnecessary healthy tooth structure is lost to the consumer notion of having a whiter set of teeth. There needs to be a general emphasis on education of what a healthy natural smile looks like to the general population, as well as ethical lessons to the young dentist who should be taught not to get carried away with doing complex expensive procedures, now that they have been made easier with the advent of dental technology.

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FACTORS INFLUENCING THE USE OF RUBBER DAM

Minahil Razzaq Malik¹, Uzma Azmat², Hira Butt³, Amna Nauman Khan⁴, Nauman Rauf Khan⁵, Maria Jabbar⁶

ABSTRACT:**OBJECTIVES:**

The aim of the study was to assess the factors influencing the use and disuse of rubber dam among house officers and final year Bachelors of Dental Surgery (BDS) students.

METHODOLOGY:

A Cross sectional descriptive study was conducted on 150 house officers and final year BDS students of Sharif Medical and Dental College, Lahore. The study was conducted over a period of one year from June 2019 to July 2020 using a structured questionnaire.

RESULTS:

It was seen that 30% of participants used rubber dam because it provided adequate isolation, improved access and ease of performing the procedure was reported as reasons by 88% while 84.7% reported longevity of the procedure as a reason for using rubber dam. The reasons reported by participants for not using rubber dam included consumption of time (49%) followed by patient's discomfort (28.9%), difficulty in usage (16.8%) and then increased cost (5.4%).

CONCLUSION:

A better tooth access and ease in treatment were the main reasons for using rubber dam in dental procedures. The second most predominant reason for use was longevity of the procedure. The most prevalent reason for not using rubber dam was time required for using it while the least was high cost.

KEYWORDS: Rubber Dam, Isolation, Access, House Officers, Final Year, BDS Students

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Correspondence

¹Minahil Razzaq Malik, Final year BDS student, Sharif Medical and Dental College, Lahore, Pakistan

☎: +92-321-4860825

✉: minahilrazzaq5@gmail.com

²Final year BDS student, Sharif Medical and Dental College, Lahore, Pakistan

³Demonstrator, Sharif Medical and Dental College, Lahore, Pakistan

⁴Professor, Sharif Medical and Dental College, Lahore, Pakistan

⁵Professor, Sharif Medical and Dental College, Lahore, Pakistan

⁶House officer, Sharif Medical and Dental College, Lahore, Pakistan

INTRODUCTION:

The best method for tooth isolation from saliva and fluids in the oral cavity for the longevity of the treatment is the use of rubber dam¹. Rubber dam is a piece of stretchable material, which helps in isolating the tooth from its surrounding². The rubber dam comprises of a frame, rubber dam sheet and the rubber dam clamps³. Rubber dam is considered an excellent measure of infection control during dental treatments by mainly reducing bacterial contamination of any dental preparations or root canal system⁴. Failure rate of restoration by use of rubber dam is quite low than those

done without rubber dam⁵. Rubber dam facilitates washing and scrubbing the work field and prevents salivary contamination and is the best tool for tooth isolation during endodontic treatment⁶. The main advantage of rubber dam is that it improves operator visibility and provides an aseptic working field to practitioners by excluding saliva, blood and gingival fluid and thus reduces the time of working⁷. It also helps the patient against ingestion and inhalation of endodontic instruments and irrigants and prevents laceration of soft tissues from rotary instruments thus contributing to an efficacious treatment⁸. Cochran et al reported that rubber dam usage reduces about 90% to 95% of microorganism spread during root canal treatment⁹. Despite all advantages and merits of rubber dam, this technique is rejected by many dentists as was shown in a recent survey that only 44% of dentists used rubber dam while doing dental treatment¹⁰. It was revealed that a large number of dentists worldwide did not use rubber dam frequently¹¹. The main reasons for this are time consumption, patient discomfort and lack of experience, lack of undergraduate training, dentist's competence, past dental experience, practice locations and resources have been suggested to significantly influence the rubber dam usage¹². It is also seen that use of rubber dam is also associated with certain specialties, and it is highest among endodontics as they are fully aware about its importance during root canal treatment and consider use of rubber dam obligatory to increase prognosis and avoid unfavorable conditions during procedures¹³. However, rubber dam usage is less common among dental students as they are less aware of its advantages¹⁴. The aim of the study was to assess the factors influencing the use and disuse of rubber dam among house officers and final year BDS students.

METHODOLOGY:

A cross-sectional descriptive study was conducted on 150 house officers and final year BDS students of Sharif Medical and Dental College, Lahore after obtaining ethical approval from ethical committee of Sharif Medical and Dental College, Lahore. Demographics like name, age and gender were collected. The study was conducted over a period of one year from June 2019 to July

2020. Keeping precision 5%, confidence level 95% and prevalence of use of rubber dam by final year BDS students 11%¹⁵, the sample size was calculated to be 151. Data was collected using a structured questionnaire³. Informed consent was taken from the participants before the start of the study. House officers and final year students irrespective of their age and gender were included in the study. House officers and final year BDS students who did not give consent to be included in the study and final year BDS students who had not worked in the department of Operative dentistry were excluded from the study. Various questions on rubber dam usage were included in the questionnaire. Numerical data like the age was reported as mean and standard deviation. Nominal data like gender was recorded as frequency and/or percentages. For data analysis, all recorded data was coded and entered using SPSS statistical package version 23.0. Descriptive statistics were presented using graphs.

RESULTS:

A study was conducted based on data collected from 150 house officers and dental students of College of Dentistry, SMDC, Lahore. The mean age of the participants was 23.29±1.245 with 29% males and 71% females. It was very evident that the 84.7% of the participants used rubber dam because the procedures done using it were more successful in terms of clinical standards and longevity. Improved tooth access and provision of adequate tooth isolation were reported to be reasons for using rubber dam as shown in Figure 1.

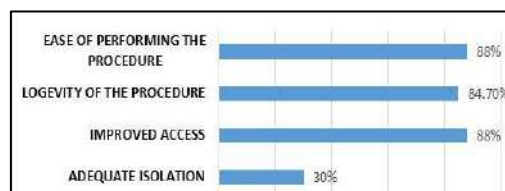


Figure 1: Reasons for Using Rubber Dam

It was further seen that majority of the participants considered the use of rubber dam to be time consuming while the least avoided using it because it was not cost effective as shown in Figure 2.

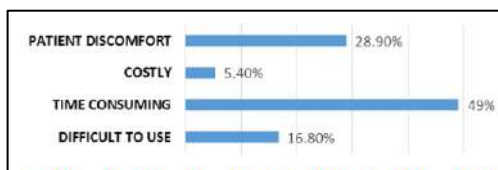


Figure 2: Reasons for Not Using Rubber Dam

DISCUSSION:

A cross-sectional descriptive study was conducted to find out the reasons for use and disuse of rubber dam during dental treatment in Sharif Medical and Dental College, Lahore. To provide the highest quality of treatment to patients, improving clinical skills and evaluation according to scientific knowledge is necessary. In dentistry, one should always follow protocols according to the treatment plan³. Isolation during endodontic and restorative procedures is very important and rubber dam is considered as gold standard for isolation⁸. According to our study, it was seen that 30% of participants used rubber dam because it provided adequate isolation, improved access and ease of performing the procedure were reported as reasons by 88% while 84.7% reported longevity of the procedure as a reason for using rubber dam. Another study reported that the major reason for using rubber dam was improved isolation (96.8%) followed by improved vision (90%), longevity of the procedure (86.4%) and then improved access (83.2%)³. Literature shows that rubber dam is very advantageous so dentists should be encouraged to use it during dental treatment as it is considered as the perfect apparatus for tooth isolation and a major mode of ensuring safety and protection of both patients and clinicians¹⁶. It also plays a major role in pediatric dentistry with different applications that line up from behavioral management to healthful therapeutic treatment including pulpotomies, pulpectomies and micro abrasion¹⁷. The reasons reported in our study by participants for not using rubber dam included consumption of time (49%) followed by patient's discomfort (28.9%), difficulty in usage (16.8%) and then increased cost (5.4%). Another study reported some similar reasons for disuse of rubber dam which included time consuming procedure (25.5%), difficulty in placement (18%) and lack of training (16.6%)³. Patient discomfort has also been reported as a reason of disuse of rubber dam in the past¹⁸. Inadequate knowledge, training in

undergraduate years, unavailability and lack of general acceptability has all been reported as reasons of disuse of rubber dam^{19,20}. The attitude of students towards rubber dam usage is important since this will set up trends in the field of dentistry therefore, steps should be taken to increase the usage of rubber dam among students and house officers²¹. This should be done by pre-clinical training and during house job, as it will result in better clinical skills of the dentists²².

CONCLUSION:

Improved access and ease of performing the procedure were the main reasons for using rubber dam in dental procedures. The second most predominant reason for use was longevity of the procedure. The most prevalent reason for not using rubber dam was consumption of time while the least was high cost.

LIMITATIONS:

A multicenter study could have helped gather data from more participants and more finding could have been un-raveled.

CONFLICT OF INTEREST: None

FUNDING SOURCES: None

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CONTRIBUTORS

1. **Minahil Razzaq Malik** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
2. **Uzma Azmat** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
3. **Hira Butt** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
4. **Amna Nauman Khan** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
5. **Nauman Rauf Khan** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
6. **Maria Jabbar** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval

FREQUENCY AND PROBABLE RISK FACTORS OF DRY SOCKET FOLLOWING EXTRACTIONS IN A TEACHING DENTAL HOSPITAL PESHAWAR, PAKISTAN

Abdul Adil¹, Nofil Zaman Khan², Muhammad Mumtaz³

ABSTRACT:

OBJECTIVES:

The purpose of this study was to find the frequency of dry socket after extractions, and whether any association exists between its occurrence and smoking, operating technique, and skill of the operator.

METHODOLOGY:

Extractions were observed in the Department of Maxillofacial Surgery, following which the clinician was interviewed using a questionnaire on the details of the nature of extraction, while the patient was followed up on day 1, 3, and 5 for any development of symptoms of dry socket. The ethical approval for this study was taken from the ethical board of Gandhara University, Peshawar.

RESULTS:

A total of 385 extractions were performed, of which 15% had developed symptoms of dry socket. There was a strong association between the type of surgical technique performed and occurrence of dry socket. There was no significant association between gender, smoking and level of clinical operator.

CONCLUSION:

Dry sockets exact cause is still yet to be proven by more clinical research; however its probable causes cannot be ignored, and care needs to be taken during and after the extraction to prevent its occurrence.

KEYWORDS: Dry Socket, Extraction, Surgical Technique

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Correspondence

¹Abdul Adil, House Officer, Sardar Begum Dental College Peshawar

☎: +92-310-133 6430

✉: a.adil4735@gmail.com

²Undergraduate Dental Student, Sardar Begum Dental College Peshawar

³Undergraduate Medical Student, Kabir Medical College, Peshawar

INTRODUCTION:

Extraction of teeth is one of the most common treatment modalities to manage dental problems, owing to its rather hassle-free procedure time and cheap costs¹. A commonly recurring, but

rather undesirable outcome of dental extractions is “alveolar or fibrinolytic osteitis” or as Crawford first named it as “Dry Socket”². It pertains to a condition presenting as post-operative inflammation of the extraction socket, with markedly increased pain intensity around the 2nd or 3rd after exodontia, which may also have a complementary presentation of partial or completely dislodged blood clot, with or without halitosis³. There might be some degree of mild swelling, along with bony exposure of the socket, with rather sever tenderness on examination⁴. There is a hallmark presentation of debilitating pain present along with the other symptoms, with narcotics and over the counter analgesics having a rather disappointing effect³. There has been no exact concrete evidence

conforming to the pathogenesis of dry socket, but the most likely reported causes has been thought to occur from the localized increased fibrinolytic activity cascading to blood clot disintegration⁵. The etiology seems to be multifactorial from intertwining branches of gender, chronological age resulting in increased hypo-vascularity associated with increased bone density, smoking, the extraction site location, the trauma inflicted during exodontia procedure, poor oral hygiene, use of oral contraceptives and localized vasoconstriction from local anesthesia agents^{6,7}. There seems to be an increased incidence of dry socket among the 40-45-age group⁸. The type and site of extraction greatly seems to affect the incidence of dry socket, as almost 1-4% of extraction cases report the symptoms, while there is almost a 10 fold chance of it occurring in mandibular compared to maxillary teeth, with Birn reporting a 20% frequency after removal of wisdom teeth in general, while removal of mandibular 3rd molars displayed a 5-30% incidence of dry socket^{9,10}. Pain is the predominant complaint in the presentation of dry socket. Appropriate management is undertaken with reassuring the patient, irrigating the site to remove debris and noxious elements, placement of soothing medicaments with intra-alveolar dressing of combined lidocaine and eugenol (Alvogyl) for approximately 3 days^{11,12}. One study deduced that chlorohexidine rinses on the day of surgery and following it with daily rinses for up to 3 days post-surgical removal of mandibular 3rd molar greatly decreased the incidental development of alveolar osteitis¹³.

METHODOLOGY:

This study was conducted in the Department of Oral and Maxillofacial Surgery, Gandhara University. Participants of this study would interview operators after completing their surgery using a structure questionnaire format, which acquired data on the type of extraction performed, the level of skill of the operator, as well as follow up on the patient whether they exhibited symptoms of dry socket after day 1, 3 and 5. Data was analyzed using the statistical software SPSS 27.0.

RESULTS:

A total of 385 extractions were recorded over a period of 2 months, which were performed by the clinical faculty of department of

maxillofacial surgery. The participants of this study included 202 females and 182 males.

Table 1: The Descriptive of Target Population

	Percentage (f)
Gender	
Male	47.3% (182)
Female	52.7% (202)
Level of Qualification	
Undergraduate	27% (107)
House Officer	49% (191)
Postgraduate	22% (84)
Reason for Extraction	
Advanced Caries	84.4% (325)
Impaction	6% (23)
Other	9.6% (35)
Extraction Technique	
Simple Elevation	76% (291)
Root Separation	10.6% (41)
Flap without Bone Removal	1.8% (7)
Flap with Bone Removal	11.4% (44)

Over 8% of the study population expressed that they smoked, of which 2% smoked more than 5 times per day. A majority of the extractions (84%) were done due to tooth being severely carious and being diagnosed as non-restorable, while 6% of the population had an impacted 3rd molar, while 9% had opted for extraction of the tooth instead of restoring it. Majority of the extractions were performed by house officers (49%), followed by final year students (28%) and postgraduate trainees (22%). Most of the extractions were performed without any further traumatic procedures and were done with simple elevation and use of forceps (76%). After 3-4 days of follow up, 15% of the population reported having symptoms of dry socket. The goal of this study was whether any association exists between the type of extraction performed, the level of skill of the operating clinician and whether the patient has a smoking habit. Of the people who experienced dry socket 8.6% had a habit of smoking, though this did not yield any statistically significant result with a p value of 0.576. There was an almost equal dispersion of male and females between the patients who had developed symptoms of dry socket. Our results also displayed that there was a weak association between the numbers of anesthesia applied and reported incidence of dry socket (p=0.468). Similarly, there was no significant correlation between the level of skill of the operating

clinician and development of dry socket ($p=0.889$). The significant finding of this study was the type of surgical procedure performed, flap with bone removal being a strong candidate for causation of dry socket ($p=0.001$).

DISCUSSION:

Clinical pain starting from the 3rd day is one of the commonly presentation of dry socket, which is thought to be caused by localized fibrinolysis of the clot to due to idiopathic causes. However, anti-fibrinolytic agents have been shown to reduce the incidence of dry socket. Surgical trauma, which leads to liberation of different tissue activators, and bacterial infections remain the two most acceptable initiating factors of this localized fibrinolytic activity^{2,3}. There have been reported incidence of dry socket following all extractions ranging from 2% to 4.4% and as high as 12.5% whereas third molar extraction has been associated with an incidence of 0.5% to 15%¹³. This variability can be attributed to the large difference between diagnostic criteria, the difference in participant variables and the random pattern of assessing the difficulty of extraction and devising a predictable protocol in accordance with the level of skill of operator¹⁴⁻¹⁶. In this study a minimum of pain and an empty socket with or without food debris were considered diagnostic. This study has found an incidence of 15% for all type of permanent teeth extractions performed at this hospital is slightly higher than figures reported in Sri Lanka and in some developed countries⁸. This variability may be due to differences in diagnostic criteria, intraoperative and postoperative treatment, patient's age, medical status, surgical technique and skill, use of oral contraceptives, tobacco and alcohol consumption, feminine gender, intra-ligamentary injection etc¹⁵. However, a statistically significant relationship was not established between genders in all patients who had extractions and those with dry socket ($p=0.001$). Some researchers have attributed this gender predilection to a better health-seeking behavior of females, whereas others have associated it with the use of oral contraceptive pills, which increase fibrinolytic activity in blood and saliva of women during the menstrual phase¹⁷. The study group ranged from 17 to >63 years of age and it was similar to the study by MacGregor¹⁸. Also, at variance with other reports⁴ but in concordance with that of Amaratunga and Senaratne, we have found a

peak age incidence of 40-50 years. Similar to other studies, extraction of mandibular molars constituted more than 50% of those complicated by dry socket. Additionally, a non-significant association was found between teeth with dry socket and patient's age group. Some authors believe that a decrease in vascularity of the alveolar bone as well as increased bone density as age progresses may be attributed to the increasing incidence of dry socket with age⁶. Most of the previous studies have reported dry socket incidence is most commonly seen in the third molar, second molar and first molars respectively. In this study, we also did not find an association between the type of tooth involved and incidence of dry socket¹². Pain is reported usually around 36hrs after the extraction. This relatively early onset could be attributed to the co-existence of dry socket with other postoperative complications such as swelling and trismus¹⁷. This can be attributed to the release of kinins post trauma, which can cause the onset of neurological pain. It has been claimed that an infection process is needed for the release of inflammatory mediator, which can theorize the delayed onset in some cases. Some researchers had found a relationship between some systemic diseases and dry socket¹⁴. This was in agreement with MacGreoger and Oginni et al. Although our demographic population does not use oral contraceptives, it has been vetted as a probable cause¹⁸. Although Krogh emphasized the incidence of dry socket was highest in the mandibular molar area (where regional block anesthesia is used), Lehnners results claimed otherwise, citing that teeth given infiltration anesthesia were more prone to dry socket due to localized vasoconstriction of the apical blood supply, but other research shows that the ischemia lasts only for 2hrs which is not sufficient to cause long term clot fibrinolysis¹⁸. This concept is currently widely accepted. Pain was the chief complaint in all patients suffered with dry socket. 81.56% of the patients whose record showed time of onset of their complaints had it by day 3 (within 72 hours). There are a number of factors which can be attributed to late reporting of pain like easy access to pain relieving tablets, pain tolerance, self-medication, seeking care from elsewhere, poor health-seeking behavior, or a combination of these and others factors. It is desirable for a dental health provider to reduce the incidence of dry socket by evidence-based practice of 0.12% Chlorhexidine gluconate clindamycin, local application of

tetracycline, and local application of Lincomycin gel foam. The primary aim of dry socket treatment is debridement of the socket from any noxious or infectious material and the immediate relief of pain¹⁷. The conventional practice in our setting is the use of irrigation with saline solution and the placement of Zinc-oxide Eugenol. The affordability and availability of zinc oxide Eugenol as well as satisfactory results obtained appear to have encouraged its continual use. Furthermore, although foreign body reaction among other possible adverse reactions to zinc oxide Eugenol has been reported in the literature, we have not found this as a clinical problem¹⁸.

CONCLUSION:

Dry socket is a common occurrence in our dental setting have a multi-factorial risk factors. The most probably risk factors identified for this pathology was the method of exodontia, out of which surgical extraction posed the highest risk. Therefore, adherence to superb surgical technique and post operative instructions should be emphasized.

CONFLICT OF INTEREST: None

FUNDING SOURCES: None

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CONTRIBUTORS

1. **Abdul Adil** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
2. **Nofil Zaman Khan** - Concept & Design; Data Acquisition
3. **Muhammad Mumtaz** - Data Analysis/Interpretation; Drafting Manuscript

THE PREVALENCE OF DENTAL CARIES AND MISSING TEETH PRESENTING IN AN OPD IN A DENTAL HOSPITAL, PESHAWAR

Saim Arshad¹, Muhammad Mujtaba², SyedaTooba Araib³, Shanza Khan⁴

ABSTRACT:

OBJECTIVES:

The aim of this study was to figure out the prevalence of dental caries and missing teeth in patients visiting the dental outpatient department in dental hospital of Peshawar.

METHODOLOGY:

A cross sectional research design was used. The duration of this study was from 1st April to June 2021. This study was conducted in the outpatient department of Sardar Begum Dental College, Peshawar. The convenient sampling technique was used to recruit the participants. Ethical approval was taken from the ethical committee of the Gandhara University, Peshawar. Descriptive analysis was performed to interpret the data.

RESULTS:

The highest percentage of teeth filled, missing or decayed were 70, 96 and 67 percent respectively. The following chart shows the mean percentage of decayed missing or filled teeth respectively. There were more than 50 participants who had worst DMFT scores of more than 10, while only 15 participants had a DMFT score of 5 or lower.

CONCLUSION:

Majority of the population had high percentage of carious or missing teeth.

KEYWORDS: Dental Caries, Teeth, Oral Health, Cavity, Dental

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Correspondence

¹Saim Arshad, Undergraduate Dental Student, Sardar Begum Dental College, Peshawar

☎: +92 -314-9716155

✉: fireflash83@gmail.com

²Undergraduate Medical Student, Kabir Medical College, Peshawar

³Undergraduate Medical Student, Kabir Medical College, Peshawar

⁴Undergraduate Dental Student, Sardar Begum Dental College, Peshawar

INTRODUCTION:

A healthy oral cavity is important aspect of the general wellbeing of an individual. Over the past few decades there have been massive campaigns by both international and local

health authorities to increase the awareness regarding oral health care¹. However, despite these efforts, negligence towards oral health care is still a pandemic throughout the world. The most concentrated brunt of the burden of oral diseases still resides in the developing world, where dental caries and periodontal diseases are rampant. Dental caries is a multifactorial disease, which is caused by the multiple risk factors in the presence of oral bacteria². The increasing risk of oral diseases, dental caries and subsequent permanent damage to the tooth structure causing loss of teeth is detrimental to the quality of life of an individual. It puts a strain on the health, social and economic well being of the person as well as the health system, which must struggle to provide quality treatment to an increasing

number of pathologies³. There have been studies relating poor oral health to low socioeconomic conditions and a lack of education in developing countries⁴. Hobell in his studies theorized that observing the constant caries development could be a good predictor for theorizing the socioeconomic state of the population⁴. The increasing trend in caries can also be attributed to the more accessible consumption of food products high in simple sugars. Dental caries is affecting all age groups and is the leading cause of edentulism in Pakistan. Observing the burden of caries and missing teeth in a population can help us predict future trends and devise plans of action to counter its detrimental effects as prevention is better than cure^{5,6}. This study aimed to calculate the prevalence of carious and missing teeth in a population visiting the OPD of a dental hospital in Peshawar.

METHODOLOGY:

This was a cross-sectional study conducted in the Outpatient Department (OPD) of Sardar Begum Dental Hospital from 1st April to 5th June 2021. Every patient visiting the OPD was examined and the number of teeth that were carious, restored or missing was noted down by the examiners after taking their consent for their data to be stored for research purposes. The sampling technique applied was simple random sampling in which the participants of the study were inducted into the study based on convenience. The dental examination was conducted by undergraduate dental students in the presence of a house surgeon who had all been trained and calibrated together for this task. After data collection and organization, mean and standard deviation was calculated for the percentage of teeth decayed missing or filled.

RESULTS:

102 patients were examined, who had an average DMFT score of 10.6 with a standard deviation of 5.2. The mean age of the participants was 28±3.

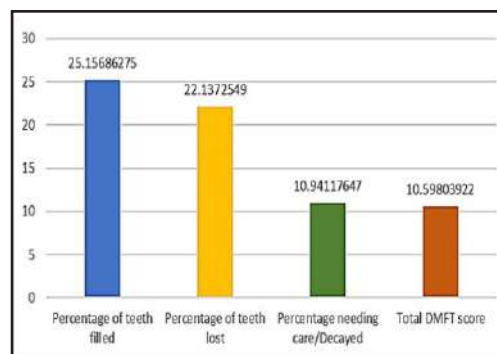


Figure 1: Showing the Prevalence of Dental Caries and Missing Teeth

DISCUSSION:

The results from this study display a worrying trend that despite, public health awareness campaigns regarding oral health care, there is still a large majority with a high burden of oral diseases. This forces a hard look at our current programs and evaluation of health education. Dental caries is still a pandemic throughout the world and the rise in processed foods high in simple sugars, is playing a major role in causing worsening oral health along with improper oral hygiene habits^{7,8}. Dental caries can start as early as the first primary teeth erupting, where if timely preventive and interceptive measures are not taken, can destroy the health of the oral cavity very quickly⁹. Hazard for caries incorporates physical, natural, ecological, behavioral, and way of life related factors, for example, high quantities of cariogenic microbes, lacking salivary stream, deficient fluoride introduction, poor oral cleanliness, unseemly strategies for bolstering newborn children, and destitution^{10,11}. The average dmft score in our study was 10.6, which is quite high compared to study from Indian having an average dmft score of 2.97. Over 25% of the teeth were restored due to caries, while almost 11% were carious. This stands lower than other cities of Pakistan where the average percentage of carious teeth are around 57% in Islamabad, 62% in Karachi, and 57% in Lahore¹². Although the difference can be attributed to the eating habits and oral hygiene habits which shows major cultural differences. A meta-analysis shows Pakistan having a mean caries percentage of 57%⁹. This is a worrying statistic, which highlights the need for robust oral health education programs¹³. There are differences due to the

level of education and socioeconomic status as well, where a study showed 8% caries prevalence in permanent teeth. There can be differences in the level of access to oral health care facilities as well¹⁴. This would put developing countries at an advantage, where studies from Ireland show 31% prevalence of caries in children, while similar studies conducted in USA and Australia had 28% and 56% respectively¹⁵. Oral health policies, fluoridation of community water, and oral hygiene products often play a role in the variability between countries¹⁶. In our study There was a large percentage of people having missing teeth at 22%. This can be attributed to lack of timely prevention once the tooth is infected with caries. In Pakistan there is not enough awareness regarding dental care prompting patients to restore carious teeth, instead the tooth is either extracted from a quack or various home remedies are applied to stop the carious progress^{17,18}.

CONCLUSION:

Overall, there is a general lack of awareness regarding dental hygiene and oral health care, which leads to high amount of DMFT scores in the population. Timely care and preventive measures is key to a healthy oral cavity, which can only be brought about by revising and reinforcing our dental education programs.

LIMITATIONS:

The sample was selected from one dental hospital of the Peshawar. The sample size was minimum, which affected the results of the study.

CONFLICT OF INTEREST: None

FUNDING SOURCES: None

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CONTRIBUTORS

1. **Saim Arshad** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
2. **Muhammad Mujtaba** - Concept & Design; Final Approval
3. **Syeda Tooba Araib** - Drafting Manuscript
4. **Shanza Khan** - Data Acquisition

PERIODONTAL HEALTH AND LEVEL DENTAL CARIES IN ORTHODONTIC AND NON-ORTHODONTIC PATIENTS: A COMPARATIVE EVALUATION

Hira Butt¹, Rubab Amjad², Mariah Ashraf³, Zeena Khan⁴, Amna Nauman Khan⁵, Nauman Rauf Khan⁶

ABSTRACT:

OBJECTIVE:

To assess the periodontal health of orthodontic in comparison to non-orthodontic patients.

METHODOLOGY:

A cross sectional comparative study was carried out on 100 patients visiting the Dental OPD of Sharif Medical and Dental College from June 2019 to July 2020. Demographical data of the participants like name, age, and gender was recorded. The duration of orthodontic treatment of patients was also recorded. Clinical examination was done using the Community Periodontal index for treatment needs (CPITN) and dmft (decayed missing, and filled teeth) index.

RESULTS:

Among the patients undergoing orthodontic treatment, bleeding gums were seen in 3, calculus in 25, pocket depth 4 to 5mm in 20 while pocket depth of 6mm or more was seen in 2 patients. Among the controls (group not undergoing orthodontic treatment) 19 had bleeding gums, 22 had calculus deposition, and 6 had periodontal pocket depths of 4 to 5mm while 3 had periodontal pockets depths of 6mm or more. A higher percentage (42%) of orthodontic patients had a high dmft score while a higher percentage (30%) of non-orthodontic patients had low dmft score.

CONCLUSION:

The biggest problem pertaining to periodontal health in patients undergoing orthodontic treatment was calculus deposition followed by periodontal pocket depths of 4 to 5mm, bleeding gums and then periodontal pockets of 6 mm or more. The periodontal problem in patients not undergoing orthodontic treatment the most severe periodontal problem was also calculus followed by bleeding gums, periodontal pocket depth of 4 to 5 mm and then pocket depth of 6 mm or more.

KEYWORDS: Orthodontic Treatment, Non-Orthodontic Treatment, Periodontal Health

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Correspondence

¹Hira Butt, Demonstrator, Sharif Medical and Dental College, Lahore, Pakistan

☎: +92-320-4635376

✉: hira.ah.butt@gmail.com

²Final year BDS student, Sharif Medical and Dental College, Lahore, Pakistan

³Final year BDS student, Sharif Medical and Dental College, Lahore, Pakistan

⁴Final year BDS student, Sharif Medical and Dental College, Lahore, Pakistan

⁵Professor, Sharif Medical and Dental College, Lahore, Pakistan

⁶Professor, Sharif Medical and Dental College, Lahore, Pakistan

INTRODUCTION:

Malocclusion is misalignment of teeth though not causing any life threatening effect but still a major esthetic concern halting social interactions and also effects psychological status of patient¹. Orthodontic procedure provides a surface that is prone to bacterial adhesion this self-cleaning efficiency of saliva reduces due to configuration of fixed appliances². Orthodontic treatment has also been associated with gingival irritation and enlargement, which in turn

promotes the formation of periodontal pocket formation³. Accumulation of the bacteria causes inflammatory reaction resulting in gingival overgrowth⁴. Oral malodor is one of the potential side effects of orthodontic treatment⁵. Plaque removal is impaired by fixed orthodontic braces, which effect gingival health⁶. Plaque deposition around the braces favors periodontal disease and dental caries by favoring dental plaque and calculus deposition⁷. Orthodontic treatment can promote gingival recession that further leads to root sensitivity, increased caries incidence and poor esthetics^{8,9}. It has also been associated with initiation of clinical attachment loss^{10,11}. White spot lesions on the teeth are a common finding on teeth undergoing orthodontic treatment¹². An increase in the volume of crevicular fluid and bleeding on probing has also been reported due to orthodontic treatment¹³. The orthodontic forces exhibit a physical agent that induces inflammation in periodontium¹⁴ which aggravates the vicious cycle of gingival inflammation, gingival recession, loss of clinical attachment and loss of alveolar bone¹⁵. The aim of this study was to assess the periodontal health of orthodontic in comparison to non-orthodontic patients.

METHODOLOGY:

A cross sectional comparative study was carried out on a total of 100 patients visiting the Dental OPD of Sharif Medical and Dental College, Lahore from June 2019 to July 2020. Keeping the precision 5%, confidence level 95% and prevalence of periodontitis in orthodontic patients to be 3% the sample size was calculated to be 45,¹⁶ which means that a minimum of 45 patients undergoing orthodontic treatment and a minimum of 45 patients not undergoing orthodontic treatment were to be included in the study making a total of 90 patients. Our study included a total of 100 patients out of which 50 were patients undergoing orthodontic treatment and 50 were those not undergoing orthodontic treatment. All the participants irrespective of gender and children with age ranging from 12 to 17 years were included in the study. Children with mix dentition and those who refused to give consent were excluded from the study. Demographical data of the participants like name, age, and gender were recorded in a Proforma. The duration of orthodontic treatment of patients undergoing orthodontic treatment

was also recorded. Clinical examination was done using the Community Periodontal index for treatment needs (CPITN) for assessing the periodontal health of the participants. The Community Periodontal Index of Treatment Need was recorded using a specially designed lightweight Community periodontal index for treatment needs (CPITN) probe with a 0.5-mm ball tip, with a black band between 3.5 and 5.5 mm and rings at 8.5 and 11.5 mm from the ball tip. The index teeth (all remaining teeth in a sextant where there is no index tooth) were probed and the highest score was recorded. DMFT (decayed, missing and filled teeth) index was used to assess the general oral health of the patients using a mouth mirror and sickle probe#23 explorer. Recorded data was coded, entered and analyzed using SPSS statistical Package version 23.0. P value of 0.05 or less was considered significant. Numerical data like age and CPITN score was presented as mean and standard deviation. Nominal data like gender, periodontal health status as determined Community Periodontal index for treatment needs (CPITN) and duration of orthodontic treatment was recorded as frequency and percentage. Chi square test was used to find the statistical association between status of treatment (patients undergoing/not undergoing orthodontic treatment) and oral health status of the individuals as determined by dmft. Fisher exact test was used to find the statistical association between periodontal health and status of treatment (patients undergoing/not undergoing orthodontic treatment) as well as association between duration of treatment and periodontal and oral health of individuals.

RESULTS:

A total of 100 patients, 50 controls and 50 cases of orthodontic treatment following the inclusion and exclusion criteria were assessed for their oral health. The mean age of the participants was 15 ± 1.798 out of which 54% were males while 46% were females. The mean CPITN score for patients undergoing orthodontic treatment 2.42 ± 0.673 was found to be higher than that of the controls 1.86 ± 0.857 . The association between periodontal health of patients with and without orthodontic treatment has been shown in Table 1

Table 1: Association Between Periodontal Health and Status of Treatment

Status of Treatment	Bleeding	Calculus	Pocket Depth 4 to 5 mm	Pocket Depth 6mm or More	P-Value
Orthodontic Treatment Group	3 (3%)	25 (25%)	20 (20%)	2 (2%)	p≤0.001
Control Group	19 (19%)	22 (22%)	6 (6%)	3 (3%)	

The mean dmft score for the orthodontic treatment group was higher (4.98±1.505) in comparison to the no treatment group (3.22±1.148). The association between dental

caries patients with and without orthodontic treatment as determined by dmft (decayed, missing and filled teeth) index is shown in Table 2.

Table 2: Association of Oral Status (Decayed, Missing and Filled Teeth) with Orthodontic Treatment

Status of Treatment	Low Score (1-3)	High Score (4 and Above)	P-Value
Orthodontic Treatment Group	8 (8%)	42 (42%)	p≤0.001
Control Group	30 (30%)	20 (20%)	

The association between duration of orthodontic treatment and periodontal health was not

statistically significant (p=0.176) as shown in Figure 1.

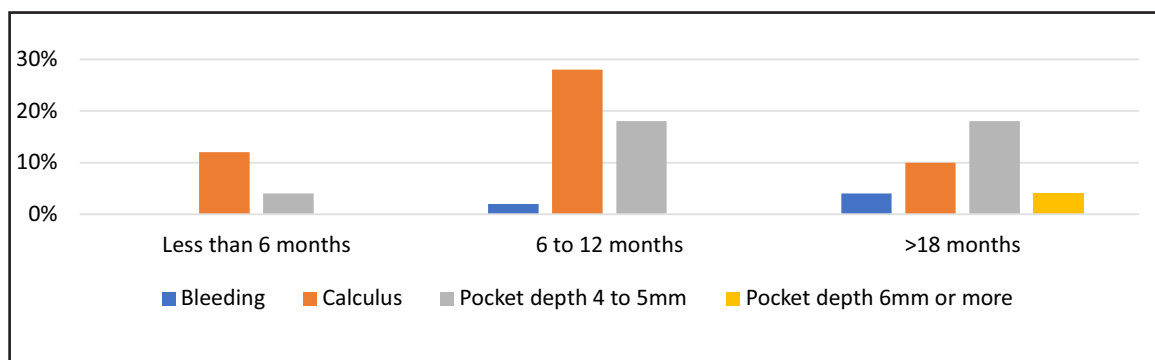


Figure 1: Association Between Periodontal Health and Duration of Orthodontic Treatment

The association between duration of orthodontic treatment and oral health was not statistically

significant (p=0.127) as shown in Figure 2.

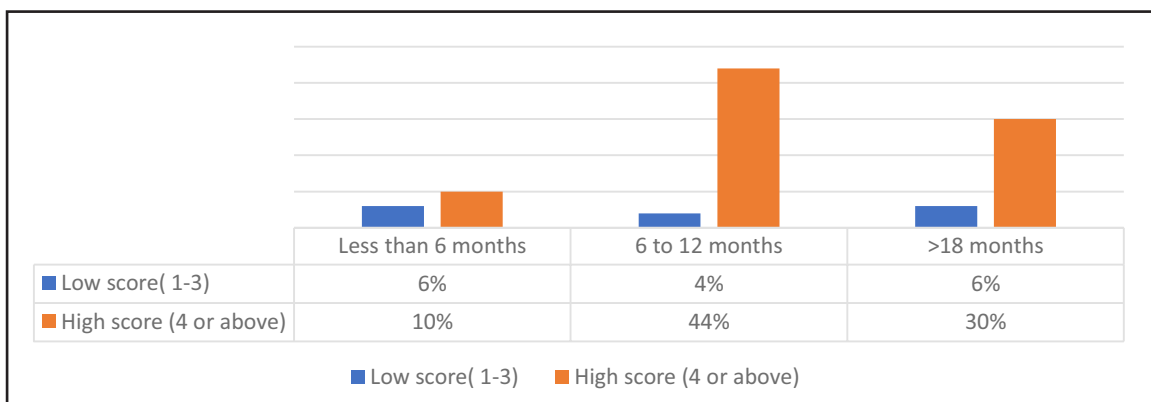


Figure 2: Association of Oral Health Status and Duration of Orthodontic Treatment

DISCUSSION:

A cross sectional comparative study was conducted to assess the periodontal health of patients undergoing orthodontic treatment and those not undergoing orthodontic treatment on patients visiting College of Dentistry, Sharif Medical and Dental College, Lahore. According to our study, it was seen that among the patients undergoing orthodontic treatment, bleeding gums were seen in 3, calculus in 25, pocket depth 4 to 5mm in 20 while pocket depth of 6mm or more were seen in 2 patients. Another study reported that a higher number of patients undergoing orthodontic treatment (36) had periodontal pockets of 4 to 5 mm while the least (1) had pocket depths of 6mm or more, which is like our study¹⁷. Study from Bahria University also reported a much higher number of orthodontic patients (20) with bleeding gums while only 6 were reported to have calculus deposits, which is very different from our study¹⁷. It was also reported in another study evaluating the impact of orthodontic treatment on periodontal health that the highest number of patients with orthodontic treatment (57) had periodontal pocket depths of 4 to 5 mm while only 1 had pocket depths of 6mm or more,¹⁸ that is very comparable to our study. The study,¹⁷ also reported that 30 patients undergoing orthodontic treatment had bleeding gums while 9 had calculus deposition. In our study, with regards to controls (group not undergoing orthodontic treatment) it was seen that 19 had bleeding gums, 22 had calculus deposition, and 6 had periodontal pocket depths of 4 to 5mm while 3 had periodontal pockets depths of 6mm or more. According to the study cited above,¹⁷ it was seen that most of the controls (31) had bleeding gums, followed by periodontal pocket depths of 4 to 5mm (11), calculus deposition (10) while none were found to have periodontal pockets depths of 6 mm or more. According to another study,¹⁸ it was seen that the highest number (48) of the controls had bleeding gums, followed by periodontal pocket depths 4 to 5mm (16) and then calculus deposition (15) while periodontal pockets of 6mm or more were not seen in the control group¹⁷. The generalized ill effects of orthodontic treatment on the periodontal health of individuals can be attributed to the accumulation of food and debris around the orthodontic appliances, inadequate oral hygiene maintenance that leads to plaque and calculus deposition¹⁸. The proliferation of microflora

then further deteriorates the periodontal health and there is gingival bleeding, recession, periodontal pocket formation, and destruction of the alveolar bone and tooth loss¹⁷.

LIMITATIONS:

A larger sample size would have helped us analyze the impact of orthodontic treatment on periodontal health and level of dental caries in more detail. Additionally, if the oral hygiene status of the patients was assessed then it would have been clear if the level of caries and deterioration in periodontal health was attributable to orthodontic treatment alone or oral hygiene also had a role to play.

CONCLUSION:

The biggest problem pertaining to periodontal health in patients undergoing orthodontic treatment & was calculus deposition followed by periodontal pocket depths of 4 to 5mm, bleeding gums and then periodontal pockets of 6 mm or more. More patients undergoing orthodontic treatment had a higher dmft score while more controls had a low dmft score. The most calculus deposition was seen in patients undergoing orthodontic treatment for 6 to 12 months while periodontal pocket depths of 6mm or more were only seen in orthodontic patients with treatment duration of more than 18 months.

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CONTRIBUTORS

1. **Hira Butt** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
2. **Rubab Amjad** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
3. **Mariah Ashraf** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
4. **Zeena Khan** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
5. **Amna Nauman Khan** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
6. **Nauman Rauf Khan** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval

THE PREVALENCE AND ASSOCIATED FACTORS OF MALNUTRITION IN CHILDREN BETWEEN 5 TO 10 YEARS IN PESHAWAR

Muhammad Mumtaz¹, Syeda Tooba Araib², Mehreen Khan³, Kamran Ahmad Khan⁴, Syeda Omama Zafar⁵, Syed Yasir Ali Shah⁶, Hamid Hussain⁷

ABSTRACT:

OBJECTIVES:

The purpose of this study was to evaluate the prevalence of malnutrition and associated factors in children between 5 to 10 years in district Peshawar.

METHODOLOGY:

A cross-sectional study was conducted on a total of 400 children between ages of 5 to 10 years. Probability cluster sampling was done, and data was collected with the help of a questionnaire. Data was then entered and analyzed with the help of SPSS (Statistical Package for the Social Sciences). Chi square tests were done for qualitative variables. Also, WHO weight for age standard deviation system was used to know the prevalence of malnutrition.

RESULTS:

The prevalence of malnutrition in children of 5 to 10 years of age was 19.75%. Gender, locality, father's occupation, family history of diseases, vaccination history of the child, dietary and sleeping routine of the child were the factors associated with malnutrition. Gender with nutritional statistically significant results that female children (25.5%) were more affected than male children (15.9%). Crosstab of nutrition with locality and familial diseases were insignificant. 21.7% urban whereas 17.3% rural children were malnourished. Familial history of diseases showed that 18.4% of children with family history of High B.P., 15.8% with Diabetes, 22% with heart diseases and 25.6% with family history of GIT diseases are malnourished.

CONCLUSION: *The prevalence of malnutrition among children in Peshawar was high.*

KEYWORDS: *Malnutrition, Cluster Sampling, Cross Sectional Study, Children, Urban*

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Correspondence

¹Mumtaz, Final year MBBS student, Kabir Medical College, Peshawar

☎: +92-345-3343657

✉: Mumtazmani48@gmail.com

²Final year MBBS student, Kabir Medical College, Peshawar

³Final year MBBS student, Kabir Medical College, Peshawar

⁴Final year MBBS student, Kabir Medical College, Peshawar

⁵Final year MBBS student, Kabir Medical College, Peshawar

⁶Final year MBBS student, Kabir Medical College, Peshawar

⁷Assistant Professor, Kabir Medical College, Peshawar

INTRODUCTION:

The world health organization (WHO) define malnutrition as: "The cellular imbalance between the supply of nutrients and energy and the body demand for them to ensure growth, maintenance, and specific functions"^{1,2}. Adequate nutrition is vital for healthy growth and development during childhood³. Malnutrition refers a pathological state resulting from relative or absolute deficiency or excess of one or more essential nutrients⁴. Many studies reported the health and physical consequences of

child malnutrition include delaying their physical growth and motor development, lower intellectual quotient (IQ), greater behavioral problems, deficient social skills, and susceptibility to infectious diseases⁵. Child malnutrition may also lead to higher levels of chronic illnesses in adult life, which may have intergenerational effects, as malnourished females are more likely to give birth to low-weight babies⁶. Despite economic and social development, childhood malnutrition still remains a major public health and social problem in less developed countries⁷. The contributing factors in childhood malnutrition are low birth weight, inadequate breast feeding and exclusive breastfeeding, inappropriate complementary feeding, maternal education, lack of proper knowledge of nutrition, micronutrient intake, parity, birth spacing, household socioeconomic status, food insecurity, poor sanitation, vaccination, and infectious diseases^{8,9}. Pakistan is among the countries in the world with the highest rates of child malnutrition, and its progress in child nutrition and health remains slower than in other South Asian countries^{10,11}.

METHODOLOGY:

It was cross-sectional study. Primarily, the study

provided information about prevalence of disease and risk factors, which is the main objective of our study. The study area is District Peshawar. We assessed both rural and urban populations in our study. But mostly rural population is taken under study due to high rate of prevalence of malnutrition in rural areas. The rural areas include Speena Warhai, Old Barha road, etc. while urban areas included Peshawar cantonment, Hayatabad, etc. Our study duration was 9 months (October 2020 to June 2021). Children between 5 to 10 years of age of both the genders. Children between 5 to 10 years living in Peshawar district were included. Afghan refugees living in Peshawar were excluded. Our sample size was 400 and we used probability cluster sampling technique for our study. A well-designed semi structured questionnaire, nutritional status graphs by WHO and a weight machine were used as tools for data collection. We calculated mean and standard deviation for the quantitative variables & calculated frequency and percentage and performed Chi-square tests for that data. Data analysis was done with the help of IBM SPSS version 26 and is presented in the form of tables.

RESULTS:

Table 1: Crosstabs of Gender with Nutritional Status

		Nutritional Status		Total	Chi- Square	P-Value
		Healthy	Malnourished			
Gender	Male	201 (84.1)	38 (15.9)	239 (100)	5.554	0.018
	Female	120 (74.5)	41 (25.5)	161 (100)		

Table 2: Crosstab of Locality with Nutritional Status

		Nutritional Status		Total	Chi-Square	P-Value
		Healthy	Malnourished			
Locality	Urban	173 (78.3)	48 (21.7)	221 (100)	1.209	0.27
	Rural	148 (82.7)	31 (17.3)	179 (100)		

Table 3: Crosstabs for Familial History of Diseases

		Nutritional Status		Chi-Square	P-Value
		Healthy	Malnourished		
Familial History of Diseases	High BP	115 81.6%	26 18.4%	3.320	0.34
	High Sugar	96 84.2%	18 15.8%		
	Heart Disease	46 78.0%	13 22.0%		
	GIT Diseases	64 74.4%	22 25.6%		

Table 4: Associated Factors of Malnutrition

		Nutritional Status	
		Healthy	Malnourished
Fathers' Occupation	Govt.	131 (86.80)	20 (13.2)
	Private	163 (79.9)	41 (20.1)
	Jobless	27 (60.0)	18 (40.0)
Vaccination History	Yes	269 (82.0)	59 (18.0)
	No	52 (72.2)	20 (27.8)
Dietary Pattern of Child	Good	161 (90.4)	17 (9.6)
	Satisfactory	124 (80.0)	31 (20.0)
	Poor	36 (53.7)	31 (46.3)
Sleeping Pattern of Child	Good	226 (88.6)	29 (11.4)
	Satisfactory	79 (66.9)	39 (33.1)
	Poor	16 (59.3)	11 (40.7)

DISCUSSION:

According to our study, the prevalence of malnutrition in children between 5 to 10 years in district Peshawar is 19.75%. It stated that 79 out of 400 children between the ages of 5 and 10 years are malnourished whereas 321 children are above the status of malnourishment. In our discussion, according to other studies, prevalence of under nutrition across the world varies from country to country^{12,13}. A study conducted in Sudan has disclosed some alarming truth. A study reported that in South Darfur (Sudan) 24% children were acutely malnourished¹⁴. Research conducted in Africa shows that the state of malnutrition in sub-Saharan Africa is characteristic of the DBM with a high prevalence of under nutrition and increasing obesity along with diet-related non-communicable diseases (NCDs). The

prevalence of undernourishment in sub-Saharan Africa rose from 181 million in 2010 to 222 million in 2016^{15,16}. Gender analysis showed that female children (25.5%) were more affected than male children (15.9%). The reason to this is the gender discrimination in the society, which gives more importance to male children and less to female children, which leaves the female children not able to gain suitable health status. According to a study in Afghanistan, the most vulnerable groups, such as women and children, are more likely to be exposed to malnutrition¹⁷. Poverty is gendered, and women are more likely than men to be poor. Malnutrition is prevalent among Afghan women. Approximately 21 per cent of Afghan women have a low body mass index (BMI), 48 per cent suffer from an iron deficiency, and a staggering 75 per cent suffer from an iodine deficiency¹⁸. Analysis of the

locality showed that urban population has 21.7% of malnourished children while rural population has 17.3% of the malnourished children. Also 13.2% children whose fathers were government employees were malnourished, 20.1% of children whose fathers were private employees were malnourished and 40% of children with jobless fathers were malnourished. According to this study, 18% children who were vaccinated were malnourished and 28.8% children who were not vaccinated were malnourished. It means that vaccination prevents the occurrence of some diseases, which preserves the immunity of a child. Another study by N Ajjan, N Guerin, and C Fillastre concluded that a depressed cellular immunity might be present in protein-energetic malnutrition¹⁹⁻²¹. Analysis of diet of the child showed that children with good diet were less malnourished (9.6%) as compared to those with satisfactory (26%) and poor (40.3%). According to this study, 13.2% children whose fathers were government employees were malnourished, 20.1% of children whose fathers were private employees were malnourished and 40% of children with jobless fathers were malnourished. According to a study in China, paternal unemployment has negative effects on child health, leading to a significant rise in underweight and stunting, and increasing children's blood pressure²². Our study also revealed that among children with good sleeping pattern, only 11.4% were malnourished while 33.1% among children with satisfactory sleep and 40.7% among children with poor sleeping pattern. Studies have shown that kids who regularly get an adequate amount of sleep have improved attention, behavior, learning, memory, and overall mental and physical health. Not getting enough sleep can lead to high blood pressure, obesity and even depression^{23,24}. There should be some other studies to figure out the other factors of malnutrition in children along with the prevention measures.

CONCLUSION:

This study concluded that prevalence of malnutrition in Peshawar is 19.75%, which is considerably high rate of malnutrition. It also concluded that female children are more malnourished than male and children living in urban areas are more malnourished than those

living in rural areas. Children who were vaccinated against diseases are less malnourished than those who were not malnourished. Children with good sleeping and dietary pattern and good oral hygiene are less malnourished than the others.

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CONTRIBUTORS

1. **Muhammad Mumtaz** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval
2. **Syeda Tooba Araib** - Concept & Design; Data Acquisition
3. **Mehreen Khan** - Data Analysis/Interpretation; Drafting Manuscript
4. **Kamran Ahmad Khan** - Data Acquisition; Critical Revision
5. **Syeda Omama Zafar** - Critical Revision
6. **Syed Yasir Ali Shah** - Critical Revision
7. **Hamid Hussain** - Supervision; Final Approval

PRE-PROSTHETIC ALVEOLOPLASTY IN A DIABETIC PATIENT: A CASE REPORT

Maria Jabbar¹, Hira Butt², Nauman Rauf Khan³

ABSTRACT:

Pre-prosthetic surgery is done to restore oral function and facial form of the patient. The surgical modification of the alveolar process and its surrounding tissues in order to fabricate a well-fitting, comfortable, and aesthetic dental prosthesis is the focus of this procedure. Pre-prosthetic surgery's ultimate purpose is to prepare the oral cavity for a dental prosthesis. In this case report a case of 57-year-old diabetic male had been presented who reported in Oral and Maxillofacial Department with a sharp pain mandibular left canine region while mastication. The patient was diagnosed with sharp bony ridge. In Alveoloplasty was done for the removal of the sharp ridge and smoothing of the bone.

KEYWORDS: Pre-Prosthetic, Alveoloplasty, Diabetic

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Correspondence

¹Maria Jabbar, House Officer, Sharif Medical and Dental College, Lahore, Pakistan

☎: +92-333-4182485

✉: dr.mariyajanbbar@gmail.com

²Demonstrator, Sharif Medical and Dental College, Lahore, Pakistan

³Professor, Sharif Medical and Dental College, Lahore, Pakistan

INTRODUCTION:

The goal of pre-prosthetic surgery is to improve the anatomic oral environment by creating proper supporting structures for the fabrication of prosthesis¹. The ultimate objective should be patient rehabilitation with the absolute best masticatory function, as well as reestablishment or improvement of oral health and facial esthetics. Substantial conservation of hard and soft tissues is required to attain this goal². The pre-prosthetic surgery is the most important part of oral and maxillofacial surgery as well as the prosthodontics. It includes both basic and advanced methods for reconstructing and rehabilitating the oral and maxillofacial region³. Pre-prosthetic alveolectomy and alveoloplasty are procedures used to eliminate bony prominences. Alveoloplasty is the word that describes trimming and removing the labio buccal alveolar ridge, as well as some interdental and inters radicular bone, which is done during and after tooth extraction. To preserve the vestibular

depth, an incision on the crest of the ridge is made and mucoperiosteal flap is raised as little as possible. By the help of rongeurs, bone files, or burs, jagged and sharp bony edges are removed to a depth of 1-2 mm, and the incision is secured with silk sutures⁴

CASE REPORT:

A 57 years old diabetic patient presented with a complaint of pain in lower left canine region in Oral and Maxillofacial Department of Sharif Medical and Dental College, Lahore. Patient was referred from department of prosthodontics for evaluation of lower left canine region as patient had a complaint of dull localized, non-radiating pain in the region since few weeks. The pain aggravated on touch and during mastication and relieved on its own. The Patient had history of extraction of teeth from lower left region about 3 months ago and during fabrication of denture the patient felt difficulty in bearing the denture due to pain in the region. On inspection the extra-oral examination revealed that the face was symmetrical with an ovoid facial profile. The skin color of the patient was brown. The mouth opening of patient was 40mm and patient had a 4-5cm scar on right side of the face. Lymph nodes were not palpable and the TMJ showed no significant findings. On inspection intraoral examination revealed an irregular alveolar ridge. The cheek mucosa and gingiva were coral pink in colour. The floor of

mouth and tongue were otherwise healthy and had no abnormality. The mandibular and maxillary alveolar ridges had no teeth and were edentulous. On palpation sharp knife like edge was observed in mandibular left canine region. Hence a pre-prosthetic alveoloplasty was planned. A bilateral mental nerve block and lingual infiltration was given and a full mucoperiosteal flap was raised by using surgical blade no 15. Removal of irregular bony ridge (alveoloplasty) was done by using bone Rongers, smoothing of the bone was done with a bone file. Closure of the wound with interrupted suturing to promote primary healing was done.



Figure 1: Pre-Operative Clinical Image Showing Irregular Mandibular Alveolar Ridge



Figure 2: Elevation of Full Mucoperiosteal Flap



Figure 3: Alveolar Bone after Removal of Sharp Edges and Smoothing of Bone



Figure 4: Repositioning of Flap and Wound Closure

After surgical procedure the course of tab. Augmentin 625 BD for 7 days, tab. Flagyl 400mg BD for 7 days, and tab. Flexion 400mg SOS was prescribed. The patient was advised to use soft diet, avoid hot and spicy food refrain from using straw, smoking and spitting. Follow up after 7 days for suture removal was done.



Figure 5: Wound after 7 Days Following Surgery



Figure 6: Wound after Suture Removal

DISCUSSION:

Pre-prosthetic surgery is the process of preparing the patient's mouth for the insertion of a denture (or prosthesis). To provide the highest level of comfort, many patients undergo minor oral surgical operations prior to obtaining a partial or complete denture⁵. Because a denture

rests on the alveolar bone, it is very important that alveolar bone is in right form and size. Bone smoothing and contouring, removal of extra bone, and/or reduction of excess gingival tissue are some of the treatments that may be required to prepare the mouth for a denture⁶. Diabetes Mellitus is a clinical condition marked by hyperglycemia caused by a relative or absolute insulin insufficiency. Diabetic individuals are more vulnerable to infections, which can result in increased oral tissue damage and therefore the fabrication of prosthesis necessitates extra caution in all patients⁷. In this case report the patient was diabetic and required more careful surgical procedure and therefore special care was used while elevating the mucoperiosteal flap in order to maintain the vestibular depth. There are many different types of alveoloplasties that are used to re-contour the alveolar ridges for fabrication of prosthesis. It is a common practice to remove the sharp bony spicules after extraction to avoid second surgery. When a patient has several teeth extracted in a row, alveoloplasty is more likely to constitute a significant part of the procedure⁷.

CONCLUSION:

Accurate diagnosis of the condition of edentulous ridges, addressing difficulties related to the same with patient and effective patient management are the important criteria for effective fabrication of complete dentures. Pre prosthetic surgical operations (alveoloplasty) carried out in this case provided efficient assistance for the manufacture of a well-fitting and comfortable denture.

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CONTRIBUTORS

1. **Maria Jabbar** - Data Acquisition; Drafting Manuscript; Critical Revision; Supervision; Final Approval
2. **Hira Butt** - Data Acquisition; Drafting Manuscript; Critical Revision; Supervision; Final Approval
3. **Nauman Rauf Khan** - Data Acquisition; Drafting Manuscript; Critical Revision; Supervision; Final Approval

