

REASONS OF TEETH EXTRACTION IN PATIENTS SEEN AT DENTAL CLINICS OF COLLEGE OF DENTISTRY, AL JOUF UNIVERSITY, KINGDOM OF SAUDI ARABIA

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ABSTRACT

This study was carried out to determine the common causes of extraction of permanent teeth in patients presenting to dental clinics of College of Dentistry, Al Jouf University, Kingdom of Saudi Arabia (KSA). This study was conducted from January to June 2016 in students and staff clinics. Three hundred extractions were selected through convenience sampling and data collected through a Form approved by the ethical committee of college of dentistry. Dental caries (70 %) was found to be the most common reason for extraction followed by periodontal diseases (12%), pre-prosthetic (5%), orthodontic purposes (3%), impactions (3%), fractures tooth (3%), associated pathology (3%) and in line of fracture (1%). It can be concluded that dental caries was the most common cause of dental extractions in the study sample.

Key words: *Tooth extractions, causes, frequency, survey.*

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INTRODUCTION

Improved health care delivery system and better educational and socio-economic conditions have significantly reduced the loss of natural teeth in the adult population worldwide.¹ However; tooth loss remains a major public health issue in the developing countries. The reasons for dental extractions differ from one country to another and among various regions of a country. The reasons for dental extractions range from caries to periodontal disease, orthodontic purpose, trauma, pathologies and pre-prosthetic reasons.²

Prevention of dental diseases has become mainstay of dentistry in developed countries, but this is not a priority in developing world.³ Dental caries and periodontal diseases being highly prevalent in developing countries are a major public health problem.⁴ Loss of teeth as a result of advanced periodontal disease and trauma has been associated with severely resorbed residual ridges which makes the esthetic and functional restorations very challenging for prosthodontists.⁵

Knowing the reasons for tooth loss is important for an effective planning to improve dental health care delivery system and to develop strategies for reduction in tooth loss. The reasons may vary from time to time and different areas of the same region. The present study was done to find out the common causes of tooth extraction in the study population. This study will help in designing measures for prevention of tooth loss in the population of northern region of KSA.

MATERIALS AND METHODS

This study was carried out in dental clinics of College of Dentistry, Al Jouf University, kingdom of Saudi Arabia (KSA). Convenience sampling was used to include 300 extractions for this study from January 2016 to June 2016. Data were collected from patients having teeth indicated for extractions and advised by the faculty members after complete examination and

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radiographic investigations. Specially designed Form was used to collect the data. The Form consisted of information regarding demographics of patient, radiographs taken and causes of tooth extractions. The deciduous tooth extractions were excluded from the study.

RESULTS

Dental caries was the most common (70%) cause of dental extractions followed by periodontal diseases (12%) and pre-prosthetic reasons (5%). Other reasons included orthodontic purposes (3%), impactions (3%), broken down roots (3%), pathological extractions (3%) and teeth in line of fractures (1%). Table 1 and Figure 1 illustrate the numbers and proportions of dental extractions.

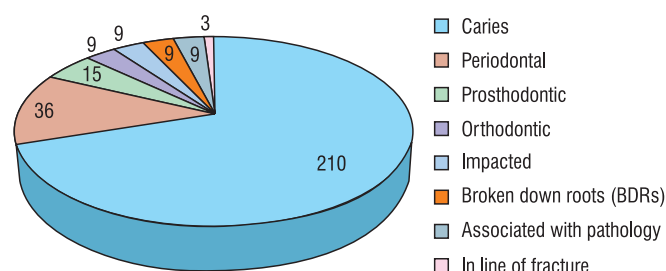


Fig 1: Number of extracted teeth with causes of the extractions.

TABLE1: VARIOUS REASONS FOR DENTAL EX-TRACTIONS.

Reasons for ex- traction	Number of ex- tracted teeth	Percentage
Caries	210	70
Periodontal dis- ease	36	12
Prosthodontic (prosthesis)	15	5
Orthodontic	9	3
Impacted	9	3
Broken down roots (BDRs)	9	3
Associated with pathology(cyst, tumor)	9	3
In line of frac- ture	03	1
Any other rea- son not listed above	00	0
Total	300	100

DISCUSSION

Dental caries was the most common cause for dental extractions in the present study which was consistent with a study conducted in Medina Munawarra which also reported dental caries to be the most common reason of teeth extraction.⁶ The results were also in agreement with similar studies conducted in Pakistan.^{5,7} Ajman⁸, Jordan⁹, Iran¹⁰ and Afghanistan.¹¹ The results attributed to increased intake of refined sugar in diet, unsatisfactory oral hygiene and lack of awareness regarding timely dental check-ups in these populations.

The second most common cause for tooth extractions in this study was periodontal disease. The results were similar to the studies conducted in Pakistan¹² and Nepal.¹³ This is possible due to lack of oral hygiene maintenance, smoking, diabetes mellitus and delay in diagnosis and lack of seeking early treatment for periodontal diseases in these populations.

Dental extractions for orthodontic purposes were also a reason in 3% patients. Studies conducted in Pa- kistan¹⁴ and Brazil¹⁵ have shown similar results. The increase esthetic awareness is contributing towards increased dental extractions for orthodontic reasons.

CONCLUSION

Dental caries was the most common reason for dental extractions followed by periodontal diseases in the study population.

REFERENCES

- 1 Al-Shammari KF, Al-Ansari JM, Al- Melh MA, Al- Khabaz AK. Reasons for tooth extraction in Kuwait. *Med Princ Pract* 2006; 15:417-22.
- 2 McCaul LK, Jenkins WM, Kay EJ. The reasons for extraction of permanent teeth in Scotland: A 15-year follow-up study. *Br Dent J* 2001; 190:658-62.
- 3 Kashif M, Mehmood K, Ayub T, Aslam M. Reasons and pattern of tooth extraction in a tertiary care Hospital- A cross section survey. *J Liaquat Univ Med Health Sci* 2014; 13(3):125-28.
- 4 Simosen RJ. Pit and fissure sealants: Then, Now and next steps. *J Public Health Dent* 2007; 64:17-22.
- 5 Ghani F, Fahimullah. Attributes of maxillary complete denture supporting tissues in subjects at a dental hospital. *JPMI* 2010; 24: 174-81.
- 6 Alaboudi AK, Aboalshamat KT, Mahfouz A, Alobodi A, Abualfaraj A. Reasons for Teeth Extraction in Governmental Hospitals in Medina City, Saudi Arabia, *IOSR-JDMS* 2016; 15:1-5.
- 7 Haseeb M, Ali K, Munir MF. Causes of tooth ex- traction at a tertiary care centre in Pakistan. *J Pak Med Assoc* 2012; 62 (8):812-5.
- 8 Thomas S, Al-Maqdassy SE. Causes and Pattern of Tooth Mortality among Adult Patients in a Teaching Dental Hospital. *Ibnosina J Med BS*, 2010:160-7.
- 9 Nsour HF, Masarweh NA. Reasons for Extraction of Primary Teeth in Jordan - A Study. *Pak Oral Dent J* 2013; 33(2):336-39.
- 10 Jafarian M, Etebarian A. Reasons for extraction of permanent

- teeth in general dental practices in Tehran, Iran. *Med Princ Pract* 2013; 22(3):239-44.
- 11 Da'ameh D. Reason for permanent tooth extraction in the North of Afghanistan. *J Dent*. 2006; 34 (1):48-51.
- 12 Janjua OS, Hassan SH, Azad AA, Ibrahim MW, Luqman U, Qureshi SM. Reasons and pattern of first molar extraction – a study. *Pak Oral Dent J* 2011; 31(1):51-4.
- 13 LPDixit, CK Gurung, N josji. Reason underlying the extraction of permanent teeth in patients attending people's dental college and hospital. *Nepal Med Coll J* 2010; 12(4): 203-206.
- 14 Naz F. Reasons for extraction in permanent dentition - A study in a tertiary care setting in Pakistan. *JPDA*. 2011; 20(04):235-38.
- 15 Montandon A, Zuza E, Toledo BE. Prevalence and reason for tooth loss in a sample from a dental clinic in Brazil. *Int J Dent* 2012; 2012:1-5.

CONTRIBUTIONS BY AUTHORS

- 1 Asmat Ullah:** Generation of idea, preparation of research proposal, research supervision and manuscript writing and final draft preparation.
- 2 Fahimullah:** Compilation and analysis of data, proof reading and final draft preparation.
- 3-5 Ahmed Alkhamis, Mohammed Alnusairy, Muhannad Aldhali:** Literature review, data collection, manuscript writing.
- 6 Umer Ullah:** Literature search, statistical analysis, manuscript writing.
- 7 Aamir Mehmood Khan:** Data compilation, statistical analysis, proof reading.
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