CAUSES OF DENTAL EXTRACTIONS AMONG 2000 PATIENTS A STUDY CONDUCTED AT ORAL AND MAXILLOFACIAL SURGICAL UNIT, KHYBER COLLEGE OF DENTISTRY, PESHAWAR - PAKISTAN

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ABSTRACT

The purpose of this study was to determine different causes of dental extractions. Two thousand patients were examined thoroughly. Among 2000 patients 1188 were male, 812 were female. Grossly Carious teeth remain the dominant cause contributing to 61.50% of all extractions followed by trauma (9.86%), miscellaneous group (9.70%), abscesses I granulomas (7.60%), impactions (3.60%), periodontal diseases (3.00%) and cystic lesions (3.00%). The least possible cause of dental extractions was orthodontic purpose (1.94%).

Key words: Causes, Extractions, Caries.

INTRODUCTION

Neglect of oral hygiene and frequent use of concentrated refined sugars are the most common causes of dental caries. The importance of oral hygiene was emphasized about 1400 years ago by the Holy Prophet of Islam (S.A.W). In his teachings1-3 he urged the use of Chewing sticks (Miswak) five times a day.4-6 Lack of dental health facilities contribute to the problem. People belonging to poor and lower middle class cannot afford the conservative dental treatment such as RCT and therefore ask for extractions.

For the past few decades it was generally accepted that, the prime cause of tooth mortality before the age of 40 years was caries followed by periodontal diseases. Epidemiological datas now show that caries and its complications continue to be the prime cause of tooth extraction through out life.7

Number of studies have been carried out throughout the world to determine the causes of tooth mortality and almost every study demonstrates caries to be the dominant cause 8-10.

MATERIALS AND METHODS

This was a prospective study of patients who were operated for extractions under local or general anesthesia in Oral and Maxillofacial Surgical Unit, Khyber College of Dentistry, Peshawar from January to September 2004. Information was collected on the prepared proforma from every patient. The proforma included name, age, sex, date, address, contact number, occupation of the patient, disease and the tooth
involved. Children who have had their deciduous teeth extracted were also included in this study in contrast to the survey conducted by Muhammad Ishaque et al. Further more, patients admitted in maxillofacial surgical unit for different maxillofacial injuries and diseases, were also included in this study. Patients being treated for hypertension and with other complicating diseases were excluded. It was also decided to extract teeth located in the fracture lines, as was stated in the literature.

Following cases were selected including a miscellaneous group; Grossly carious teeth which could not be saved through conservative means, broken down roots, teeth suffering from pulpitis due to caries or trauma which could not be saved, impacted teeth, very loose teeth suffering from periodontal disease, teeth which showed abscesses/granulomas, teeth involved with cystic lesions, those teeth which are removed for orthodontic purposes and teeth falling in miscellaneous group. The miscellaneous group consists of retained, malposed teeth, supernumeraries, mesiodents, prosthetic purpose and other maxillofacial surgical diseases.

RESULTS

Among 2000 patients 812 were female, 1188 were male. Results are shown in Fig-1. The collective total consists of 2000 patients and 3164 teeth with 1.58 teeth per patient. There was a high male prevalence compared to that of female. Grossly carious teeth remain the dominant cause consisting of 61.50% of all extractions followed by Trauma 9.86%, miscellaneous 9.70%, Abscesses/Granulomas 7.60%, impactions 3.60%, periodontal problems 3.00%, Cystic lesions 3.00% and orthodontic purposes 1.90%. Results are shown in table-1.

Age wise distribution shows the high prevalence of dental extractions in age groups 1 to 10 years (36.10%), followed by 11 to 20 years group (27.30%), 21 to 30 years (13.80%), 31 to 40 years (8.45%), 41 to 50 years (10.05%), 51 to 60 years (2.50%), 61 to 70 years (1.40%), and 71 to 80 years (0.40%) as shown in Fig-2.

DISCUSSION

Dentists are frequently besieged by patients requesting, "take out all my teeth" because these per-sons: (a) are seeking impossible cures for a myriad of diseases (b) want a "set of beautiful white teeth" or (c) are tired of " always going to the dentist," plus many other equally unrealistic "reasons". No ethical dentist would extract teeth for such reasons any more than a surgeon would arbitrarily amputate a limb. Then it is the dentist's responsibility to try to convince the patient that his teeth should not be extracted. Loss of teeth may cause much more complications such as, (1) it places limitations on diet and cause digestive trouble.(2) it produces a certain sibilance in speech. (3) it results in a prematurely aged appearance due to loss of support and consequent falling off the lips and cheeks. (4) it can produce loss of confidence and even psychological disturbances from mutilated appearance. (5) Missing tooth can lead to many problems such as shifting teeth, difficulty in chewing and malocclusion. There are frequent indications for extractions, but perhaps all the indications for extraction become stronger if the patient is unwilling or unable financially to support the decision to maintain the tooth. The inability of the patient either to pay for the procedure or to take enough time from work to allow conservative treatment to be performed may require that tooth to be removed.

Cahen PM et al have revealed that 49% extractions were due to caries in France followed by periodontal diseases (32.4%), while orthodontics contributed to 8.4% of all extractions, which is a bit lower than our Peshawar study. Angellilo IF et al is of the opinion that dental caries was most common reason of tooth extraction in Italy (34.4%) followed by periodontal disease (33.1%). Corbet EF and Davies WI concluded that 60% of extractions were due to caries, which is very close to our study, while periodontal disease contributed to 28%, trauma (which included tooth wear) 4%, orthodontic and other reasons 2% of all extractions done in Hong Kong study. A study conducted by Reich E and Hiller KA shows an interesting result that 20.7% of all extractions were due to caries in Germany. The results of our study show a high incidence of caries (61.50%) followed by trauma (9.86%). However, international literature shows contradictory results.

Pain was a more frequent complain of the patient when examined and the insistence for extraction of an otherwise restorable tooth lead to such high percentage. There are only 5000 registered dentists in Paki-
TABLE 1: AETIOLOGY WISE DISTRIBUTION OF DENTAL EXTRACTIONS.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Aetiology</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Grossly Carious</td>
<td>472</td>
<td>758</td>
<td>1230</td>
<td>61.50</td>
</tr>
<tr>
<td>2</td>
<td>Periodontal diseases</td>
<td>26</td>
<td>34</td>
<td>60</td>
<td>3.00</td>
</tr>
<tr>
<td>3</td>
<td>Impactions</td>
<td>42</td>
<td>30</td>
<td>72</td>
<td>3.60</td>
</tr>
<tr>
<td>4</td>
<td>Abscess/Granuloma</td>
<td>76</td>
<td>76</td>
<td>152</td>
<td>7.60</td>
</tr>
<tr>
<td>5</td>
<td>Cystic lesions</td>
<td>34</td>
<td>26</td>
<td>60</td>
<td>3.00</td>
</tr>
<tr>
<td>6</td>
<td>Orthodontic purpose</td>
<td>18</td>
<td>20</td>
<td>38</td>
<td>1.90</td>
</tr>
<tr>
<td>7</td>
<td>Trauma</td>
<td>48</td>
<td>146</td>
<td>194</td>
<td>9.70</td>
</tr>
<tr>
<td>8</td>
<td>Miscellaneous</td>
<td>69</td>
<td>98</td>
<td>194</td>
<td>9.70</td>
</tr>
</tbody>
</table>

Fig 1. Total No. of patients examined and diagnosed for extraction under Local and General anesthesia

Fig 2. Age wise distribution of Dental extractions
stan for the population of about 150 million. Thus dental facilities are limited and people living in remote areas have to travel large distances to seek dental treatment. Therefore they prefer extractions rather than RCT which is an expensive treatment and require multiple visits. The lowest rates of extractions performed were those for orthodontic purposes (1.94%). The reason for this low percentage could be that where as caries is a universal phenomenon, prevailing in every section of our society, while orthodontic treatment is limited to only those patients who can afford the high costs of this treatment.

CONCLUSION

The results of this study show that caries (61.50%) is responsible for high rates of dental extractions and presents a significant dental health problem. Most affected patients were children and young adults, which shows lack of awareness among the population for maintaining good oral hygiene. In addition, poverty and lack of proper dental health facilities further complicate the situation.

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