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ASSESSMENT OF CLINICAL TRENDS IN PATIENTS WITH MISSING TEETH AND CONGENITAL TOOTH AGENESIS

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ABSTRACT

This was part of a larger study titled, "CLINICAL AND GENETIC STUDIES IN FAMILIES WITH TOOTH AGENESIS". The traditional perception regarding the tooth replacement has been changed tremendously over a short period of time. It is the need of the hour to re-evaluate the changing perceptions and trends of the patients. The objectives of the study were to render valuable information to practitioners and research workers to improve their services and to educate the community regarding oral health. It was a descriptive study and relied on a retrospective data of three months (Jan- Mar 2014) from OPD of prosthodontics department of Islamic International Dental College, Islamabad. There were 1518 patients that formed the study group and showed an increased treatment trend of removable prostheses rather than the fixed prosthesis.

Key Words: Prosthodontics, Clinical Trends, Treatment Needs.

INTRODUCTION

The development of oral sciences, especially the achievement in dental materials and technology, led to the innovation of prosthodontics. Over a period of time, changing trends of patients can be observed in a particular area which depicts the needs and demands of the patients living in that area.¹

The paradigm of dental health profession has shifted towards preventive dentistry because of increasing awareness due to print and electronic media.² Many studies have been conducted to evaluate the trends of patients coming for replacement of missing teeth. It had been proposed that female patients are more in need of dentures than the male patients because of the fact that with advancing age, more men were found to be dentate than the women population.³ He further established that 80% of the population wore removable dentures while only 1% were having fixed prosthesis in their mouth. In 2004, Okoisor found out that the causes of edentulism are age related.⁴ Caries

were the major cause of tooth loss in early ages while periodontal diseases being the main reason in elderly patients. Therefore, the treatment needs in partially and completely edentulous population can be assessed by evaluating the causes of tooth loss.⁴

The traditional perception regarding the tooth replacement has been changed tremendously over a short period of time.⁵ It is the need of the hour to re-evaluate the changing perceptions and trends of the patients so that awareness could be created in population to provide better health facilities. The purpose of this study was to render valuable information to the dental practitioners and research workers that will not only help them to improve their services and skills but also to educate the community regarding oral health and treatments.

METHODOLOGY

This was part of a larger study titled, "Clinical and genetic studies in families with tooth agenesis". This analysis relied on a retrospective chart review of the data collected from OPD of prosthodontics department of Islamic International Dental College, Islamabad.

Survey was done by the data gathered in period of three months, i.e., from 1st January, 2014 to 31st March, 2014. Simple random sampling technique was used to evaluate the subjects. Total number of patients

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included in this study were 1518. Dental data history included the age, gender, number of new and old patients, number of removable and fixed prosthesis given, type of procedures done and the post-operative complaints. Patients were further distributed in different age groups and also on the basis of treatments performed in male and female patients.

Inclusion Criteria: All the patients visiting OPD of prosthodontics department, IIDC, who have all the information documented in the provided data.

Exclusion Criteria: Patients with non-specified information.

Data Analysis: Collected data were analysed using statistical component of Microsoft Excel (2013 version).

RESULTS

According to the data collected, it was revealed that there were 1518 patients presented in OPD with in three months. Among these patients, there were more male patients. (Male 56%: Female 44%). Age wise distribution of patients was done. Striking findings were witnessed in patients between 10-30 years of age, which was around 13%. This reflects the increase in edentulism in this age group. 35% patients of age 31-50 years, 43% patients of age 51-70 years and around 8% patients of age 71-90 years were observed. Furthermore, the pattern of age distribution among male and female was separately analyzed showing more middle aged female subjects while in rest males were more than females. Trends in treatment options demonstrated the increased demand of removable prosthesis (RPDs and CDs) rather than the fixed prosthesis (crowns and bridges). No doubt, RPD is the most popular prosthesis among the patients coming to get their teeth replaced. More males received RPD than females. Patients coming with post insertion complaints were more for denture adjustment and repair. A few of them reported for crown removal and crown re-cementation.

DISCUSSION

The current study was carried out between diverse patient age groups. Some spectrum parameters were set to analyze the pattern of the incoming patients in the area. The sample size of 1518 patients was satisfactory to judge the trend in the society. 845 (56%) male patients reported to the department than 670 (44%) female patients (fig 2). This can be attributed to the fact of different aesthetics and functional criteria and expectations between male and female.⁸ Male

dominance showed their concern and easy access to the department. Moreover, it may also signify the less need of prosthesis to females because of maintaining better oral hygiene than male. Our rural women are also usually depended on their men to provide dental treatment.³ Age wise analysis was surprisingly peculiar because of a significant number of male and

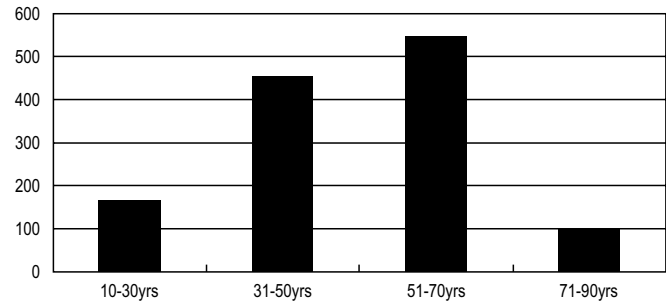


Fig 1: Distribution in different age groups

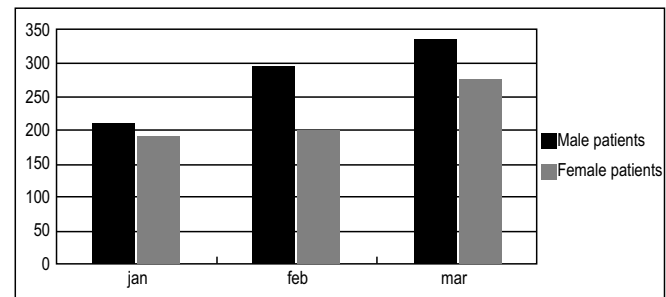


Fig 2: Ratio of Male and female patients reported in three months

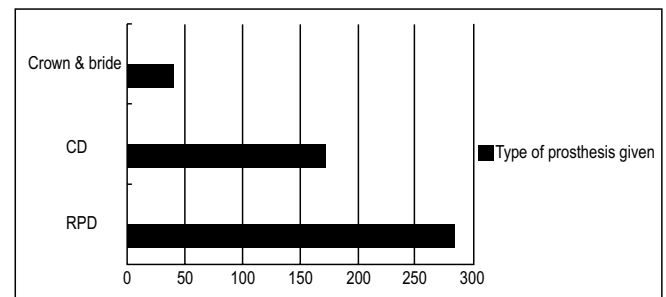


Fig 3: Ratio of removable and Fixed Prosthesis

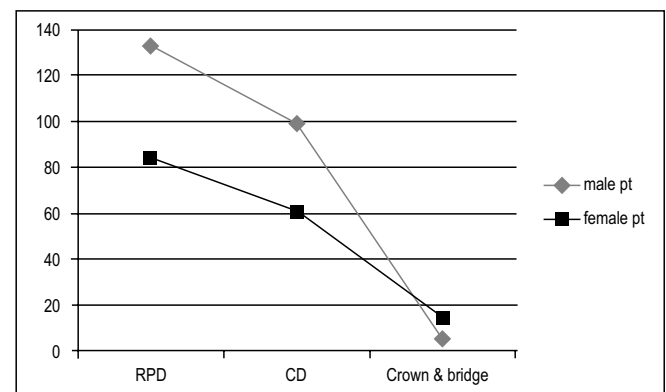


Fig 4: Treatments undertaken by male and female patients

female patients of age 10-30 years reported to the department. 96 (7%) male patients and 80 (6%) female patients of this respective age group makes the treatment planning more challenging. In such young age group dietary factors influence the DMFTs rate and percentage of tooth loss and ultimately effects the need of prosthesis.⁹ In countries with low socio economic status the preventive dentistry department is still not well developed causing adverse effects which targets this young population.² The department was visited by 550(43%) elderly patients of age 51-70 years (fig 1). In elderly patients, chronic diseases, low income and social status along with physiological changes affect the condition of the stomatognathic system.¹⁰ Advancing age leads to changes in behaviour of the society. Similarly, observing the trends in treatment options revealed 283(57%) removable partial dentures, 173(35%) complete dentures and 40(8%) crown and bridges wearers (fig 3). The patients in this area opted for conventional removable prosthesis rather than fixed prosthesis,¹¹ probably because of the devastated socioeconomic status. This creates a gap between the ideal needs and demands of the patients. No doubt, a patient considers the expense related prosthodontic treatment options and surely the cost plays the major constraint for the wide range treatment.⁵ As gender wise distribution of treatment option is considered, more males opted for removable partial dentures than females however more females opted for crown and bridge than males (Fig 4). Referring to post operative complaints denture repair and adjustment was the commonest. This may reflect the non compliance of the patient towards their prosthesis because of lack of education. Maintaining hygiene keeps the prosthesis long lasting.¹¹

Keeping in mind the limitations of this study, findings may not coincide with other institutes and private clinics as patients with different socio demographic characteristics are reported.⁸ The data documentation is a very critical procedure which was not done accurately by the department. Some parameters were missing which effected the results but depicted the true picture.

CONCLUSION

Different trends and pattern influence the strategy and quality of treatment in prosthodontics and give an estimate of treatment needs which are required for proper oral health care planning. Based on the present study we strongly recommend to re direct institutional and public health sector to preventive strategies for reducing dental problems and improving knowledge and behaviours of population.

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