

INTRAORAL DISTRIBUTION OF GINGIVAL RECESSION IN A NIGERIAN POPULATION

Anibor Ese

Department of Human Anatomy and Cell Biology, Faculty of Basic Medical Sciences,
College of Health Sciences, Delta State University, Abraka, Nigeria.

Email: eseovo2000@yahoo.com

ABSTRACT

Aim: This study was designed to determine the intraoral distribution of gingival recession in a Nigerian population.

Methods: The study was performed on 153 males and 219 females, aged 15 years and above who had gingival recession. Intraoral examination was performed on a cross section of Deltans in Abraka to determine the intraoral distribution of gingival recession in the area. Statistical analysis of the results was accomplished via the Statistical Package for the Social Sciences. Chi square was used to search for significant gender differences as a $P < 0.05$ was regarded as significant.

Results: Of the 372 subjects, 144 (38.7%) had upper right quadrant as the most frequent region in the mouth affected by gingival recession, 96 (25.8%) had upper left, 70 (18.8%) had lower right while 62 (16.67%) had lower left. The gender difference in the intraoral distribution of gingival recession among the Deltans was significant ($P < 0.05$).

Conclusion: The most frequently affected region with gingival recession was the upper right quadrant of the mouth.

Keywords: Intraoral, Gingival, Recession, Mouth, Nigeria

INTRODUCTION

It is interesting to note that whereas some researchers indicate that the maxillary canines and premolars (Watson, 1984), were the teeth most frequently affected by gingival recession, others mention maxillary premolars and molars (Khocht et al., 1993) and mandibular central incisors and maxillary first molars (Albandar and Kingman, 1999; Anarthe et al., 2013) as the teeth most frequently affected by gingival recession. The mandibular lateral incisors and premolars and the maxillary and mandibular first molars are also commonly affected (Anarthe et al., 2013). Sarpangala et al., (2015) showed that canines of both the upper right and left were the most frequent regions affected by gingival recession. It has been discovered that the distribution pattern of gingival recessions is related to different etiologic factors (Anarthe et al., 2013). Gingival recessions on the mandibular incisors were tied to poor oral hygiene (Addy et al., 1987), whereas those on

the premolars were linked to traumatic tooth brushing (van Palenstein et al., 1998). Carlos et al., (1995) conducted a study on the prevalence and distribution of gingival recession among University of the East dental students with a high standard of oral hygiene. They saw that facial gingival recessions were frequent. Thomson (2000) conducted a study on the prevalence and intraoral distribution of periodontal attachment loss in a cohort of 26 year old. He noted that gingival recession was greatest for midbuccal sites on mandibular premolars, followed by midbuccal sites on maxillary premolars and mandibular molars. There is dearth of data on intraoral distribution of gingival recession among the Deltans in Nigeria. The result of this study is therefore vital to dental practitioners in strategic planning of preventive programs to control gingival recession.

MATERIALS AND METHODS

The study area is Abraka a town in Delta State, Nigeria. The study sample comprised 153 males and 219 females, aged 15 years and above who had gingival recession. Multistage sampling was employed in this cross sectional survey. Ethical issues were not ignored as permission was obtained from the Ethical Committee of the Department of Human Anatomy, Faculty of Basic Medical Sciences, Delta State University, Abraka. Intraoral examination of all the

subjects was done to determine the intraoral distribution of gingival recession. Each participant examined had at least one exposed root surface. The investigation and analyses focused only on the buccal surfaces of the teeth. Statistical analysis of the results was accomplished via the Statistical Package for the Social Sciences. Chi square was used to search for significant gender differences as a $P < 0.05$ was regarded as significant.

RESULTS

Table 1: Intraoral distribution of Gingival Recession

| Gender | Ratings of Gingival Recession | | | |
|--------|-------------------------------|------------|-------------|------------|
| | Upper Right | Upper Left | Lower Right | Lower Left |
| Male | 66 | 32 | 29 | 26 |
| Female | 78 | 64 | 41 | 36 |
| Total | 144 | 96 | 70 | 62 |

Of the 372 subjects, 144 (38.7%) had upper right as the most frequent quadrant affected by gingival recession, 96 (25.8%) upper left, 70 (18.8%) lower right while 62 (16.67%) lower left. The gender difference in the intraoral distribution of gingival recession among Deltans was significant ($P < 0.05$).

DISCUSSION

This study revealed that the most frequently affected region with gingival recession was the upper right quadrant of the mouth. This finding differed from that of Manchala et al., (2012) who noted that the most frequent quadrant in the mouth with gingival recession was lower left followed by the lower right. This study did not concur with those who reported higher prevalence of gingival recession around the mandibular anterior teeth (Leo et al., 1992; Anarthe et al., 2013). The present study concurred with one with a high prevalence of gingival recession on the maxilla (Gorman, 1967). This study also concurred with another that revealed differences in the occurrence of gingival recession at the right and left sides of the mouth (Vehkalahti, 1989; Anarthe et al., 2013). This result may be due to variation in toothbrushing between individuals, either right- or left-handed, in relation to the traumatic effects of toothbrushing. The many variations in the studies cited in the discussion may be as a result of the methods employed when brushing the teeth.

CONCLUSION

The most frequently affected region with gingival recession was the upper right quadrant of the mouth.

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