ASSESSMENT OF NUTRIENT CANALS IN HYPERTENSIVE AND DIABETIC PATIENTS- A RADIOGRAPHIC STUDY

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ABSTRACT

Background and Objectives: Nutrient canals are channels that contain blood vessels in bone, seen most frequently in mandibular anterior region. There remain many controversies surrounding the correlation between the presence and clinical significance of nutrient canals and various systemic and pathologic conditions. Hence, present study was undertaken to determine if any correlation exists between healthy individuals with hypertension and diabetes patients.

Methods: The study was conducted in 150 individuals in the age group of 21-60 years. They were clinically and radiographically examined using intraoral periapical radiographs, and were divided into controls, hypertension and diabetic groups consisting of 50 in each group respectively. The statistical analysis was done.

Results: The distribution of nutrient canals in control group was 24%, hypertensive 62% and diabetes 58% respectively. On Comparing the control group with that of other groups, the distribution of nutrient canals was observed to be significant both in hypertensive (62%, p=0.0001) and diabetes (58%, p=0.0005). Diabetes and hypertensive groups showed a age

wise prevalence increase peaking between 41 -60 years. In all groups the nutrients canals were observed more between the root apex than beyond the roots.

Interpretation and Conclusion: Based on the findings from the present study, a statistical correlation was found in hypertension, and diabetes when compared with normal individuals. The increase in prevalence of nutrient canals on mandibular anterior IOPA's can be used as an adjunct diagnostic aid in systemic diseases like Hypertension & diabetes.

Key words: Nutrient canals; Hypertension; Diabetes mellitus.