ABSTRACT

AIM: The Aim of this study is to evaluate and compare the pain following obturation in single visit and two-visit endodontic therapy in controlled Type II Diabetes Mellitus patients and Non-Diabetic individuals.

MATERIALS AND METHODS: 90 patients with irreversible pulpitis [30 type II Diabetic (Group A) and 60 Non-Diabetic patients (Group B)] were included in this study. Each group was further subdivided into two subgroups; single visit (subgroup A) and two visit (subgroup B) by using a set of random numbers. The standard procedures performed for both the groups during the first visit included administration of local anesthesia, rubber dam isolation, and standard access cavity preparation. Canals were prepared using hand files (K files, Mani) and ProTaper (DENTSPLY) rotary Nitti files using the hybrid technique. Teeth in single visit group were obturated in the initial appointment using gutta-percha and ZOE sealer and those in two visit group were recalled for the second appointment one week later for obturation. The evaluation of post obturation pain was done with visual analogue scale (VAS) and converted to numerical rating scale. The results were statistically analyzed using chi-square test, Kolmogorov-Smirnovtest and Shapiro-Wilk tests.

RESULTS: In controlled diabetic group, there was no significant difference in pain at any time interval between single visit and two-visit groups but the incidence of pain was high in single visit group in the first 24 hours which gradually reduced. Overall comparison of pain among diabetic and non-diabetic individuals following one-visit and two visit root canal therapy at various time intervals shows no significant difference.

CONCLUSION: Within the limitations of the study, it can be concluded that type II controlled diabetic patients with irreversible pulpitis experienced more pain after single visit root canal treatment in the first 12 hours when compared to non-diabetic patients.

KEYWORDS: Single visit and Two visit root canal therapy, Type II Diabetes Mellitus, Protaper