

**Postoperative Pain After Root Canal Treatment
Using Manual or Rotary ProTaper System:
A Randomized Clinical Trial**

Dr. Nehal Ezzat Thabet, *Professor of Endodontics ,Faculty of oral and dental medicine, Cairo University*

Dr. Shaimaa Gawdat ,*Lecturer of Endodontics ,Faculty of oral and dental medicine, Cairo University.*

Arig Mohammed Saeed Ashour ,B.D.Sc (2006) Faculty of Oral and Dental Medicine ,Benghazi University. Libya.

ABSTRACT:

Aim to compare the postoperative pain after the use of manual and rotary instrumentation of the same ProTaper Universal system (Dentsply Maillefer ,Tulsa Dental, TN, USA) in a parallel randomized, controlled clinical trial.

Methodology: Forty-six patients with (vital and non-vital) mandibular posteriors (premolars and molars) without periapical radiolucencies underwent one visit root canal treatment. They were divided into two equal groups with 23 patients per each, according to the instrumentation technique used group1 (manual protaper files) and group2 (rotary protaper files). Preoperative pain was recorded and assessed after 6, 12, 24, 48, 72 hours and 7 days using the Visual Analogue Scale (VAS).

Results showed that there was no statistically significant difference in the postoperative pain intensity between the two groups preoperatively..

A very low incidence of severe pain was recorded for Group2 after 12 and 72 hours, which was 4.3%.

Group2 showed lower pain intensity compared to group1 after 12, 24 and 72 hours postoperatively. Group2 showed decrease in the pain intensity compared to preoperative pain, while group1 decrease in the pain intensity only after 48 and 72 hours. However, after 7 days significant decrease in

the pain incidence (95.7% showed no pain) and pain intensity for both groups.

There was no correlation between the postoperative pain and age, tooth type during all follow up periods, but male patients showed higher VAS scores compared to females at 12 and 72 hours. In addition, vital teeth showed higher VAS scores than the non-vital teeth.

Conclusion: Pain was less postoperatively after Rotary Protaper instrumentation, pain decreases postoperatively by time, the least pain was encountered one week postoperatively in both groups, and male patients showed higher VAS scores compared to females at 12 and 72 hours. In addition, vital teeth showed higher VAS scores than the non-vital teeth.

