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Research Article

### ANALYTICAL COMPARISON OF PAIN SEVERITY PREOPERATIVELY AND POSTOPERATIVELY BETWEEN TWO SESSIONS OF ROOT CANAL TREATMENT

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**Abstract:**

**Objective:** The purpose of this analysis was to determine the severity of pain after two sessions of root canal treatment and to determine the relationship between pre-obturation and post-operative pain.

**Study Design:** A Quasi Experimental study.

**Place and Duration:** This analysis was conducted in Margalla Dental hospital, Rawalpindi for one year duration from 1<sup>st</sup> June 2019 to 31<sup>st</sup> May, 2020.

**Methodology:** In this study, total Sixty patients were selected. The length of the study was determined by periapical radiography after the preparation. The canal was prepared using K-files using the Step-Back technique and the filling was made by lateral gutta-percha concentration. In the group where two visits were made, the preparation of the channel was completed on the first visit and the filling was carried out at a later date. Data were analyzed with SPSS version-13.0. Repeated measurement of variance analysis (ANOVA), Chi-square and Pearson correlation (*r*) values were considered significant  $p < 0.05$ .

**Results:** After 4 hours, the mean VAS in the visit group of the single root canal was  $4.7 \pm 2.96$  and  $2.8 \pm 1.73$  in the visit group. The mean VAS score of the two visits after 12 and 24 hours for postoperative pain was lower than that of a visit. The data showed a direct correlation in postoperative pain and obturation in both groups.

**Conclusion:** In the first 4 hours, root canal treatment was compared from the next visit to two sessions, but no advantage was observed when the root canal treatment from two visits provided better results in terms of pain Postobturation after 12 and 24 hours. Although this study showed positive results in the treatment of root canal of two visits related to postobturation pain.

**Key words:** visual analog scale, postobturation pain, preoperative pain, endodontic treatment with two visits, Endodontic treatment of a visit.

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(Dentsply / Maillefer, Ballaigues, Switzerland). Teeth were randomized into two groups, as follows: Group 1, treated only with paper points, each channel is filled with spots, and then the root canals of the root canals Sealapex (Sybron Endo, CA with percussion-proof US) using the lateral condensation technique. Group 2, treatment of multiple visits, teeth prepared

as in group 1, but not blocked. Chemomechanical preparation was completed with the same technique for all cases in the first case. a sterile cotton pellet pulp was placed in the chamber and the access gap was closed with Provisional Restoration (Favodent, Karlsruhe, Germany).

#### Pre- and Postoperative Pain:

\_\_\_\_\_ day 0 \_\_\_\_\_ 7 days \_\_\_\_\_ 3 months \_\_\_\_\_ 6 months \_\_\_\_\_ 12 months

0 = No problem  
1-3 = Mild problem  
4-6 = Moderate problem  
7-9 = Severe problem

	None	Mild	Moderate	Severe
Pre- and post-treatment pain	0	1-2-3	4-5-6	7-8-9

#### Patient Satisfaction after Treatments:

\_\_\_\_\_ 7 days \_\_\_\_\_ 3 months \_\_\_\_\_ 6 months \_\_\_\_\_ 12 months

0 = Unsatisfied  
1-3 = Mildly satisfied  
4-6 = Moderately satisfied  
7-9 = Very satisfied

Degree of overall satisfaction	Unsatisfied	Mildly satisfied	Moderately satisfied	Very satisfied
Pre- and post-treatment pain	0	1-2-3	4-5-6	7-8-9

After one week, the teeth were closed as in group 1. Data were analyzed with SPSS version-17.0. Repeated measures of variance analysis (ANOVA), Pearson correlation (r) and chi-square test were performed between the two groups. Statistical significance was taken as  $p < 0.05$ .

#### RESULTS:

Of the 60 patients who underwent root canal treatment, 32 (53.3%) were male and 28 (46.7%) were female (M: F = 1.1: 1). The mean age of the patients in the single visit group was  $31.9 \pm 12.4$  years and it was  $30.5 \pm 8.7$  in the two groups ( $p = 0.591$ ). Of the 30 patients who visited the single root canal, 19 (63%) were vital and 11 (37%) had necrotic dental status, 30 had two-channel canal visit, 22 (73.3%) were vital and 8 (26.7%) were necrotic tooth ( $p = 0.405$ ). Pain is the most common presentation pattern for visits to the root canal and 56.7% and 70% respectively, followed by 26.7% and

10% food sensitivity, 10% sensitivity 10%, and 6.7% prosthesis. and 10% ( $p = 0.408$ ). The mean preoperative pain score (VAS) was  $2.03 \pm 1.27$  in patients undergoing a single visit of the root canal. In two visits, the root canal was  $1.97 \pm 1.09$  ( $p = .829$ ). After 6 hours postoperatively, the mean EVA values of the single root canal were  $1.97 \pm 1.12$  and  $1.20 \pm 0.71$ , respectively. Slimming after 6 hours in the pain score was found to be statistically significant in both the individual visits and the channel ( $p = 0.003$ ). After 12 hours postoperatively, the mean VAS in the visit group of the single channel was  $1.40 \pm 1.07$  and  $1.03 \pm 0.66$  at the two-channel canal entrance. The slimming of the pain score after 12 hours was not statistically significant in the individual visits group and in the two channels ( $p = 0.117$ ). After 24 hours postoperatively, the mean VAS value of the single root canal was  $1.0 \pm 0.98$  and  $0.60 \pm 0.77$ , respectively, in the visit of two root canals ( $p = 0.085$ ).

**Table :1**  
Comparison of Pre and Post Operative Pain between Visit 1 and 2

	Number of Visit	Mean	SD	p-value
Pre Operative Pain	1	2.03	1.27	0.829
	2	1.97	1.1	
Post Operative Pain 6 Hourly	1	1.97	1.13	<b>0.003</b>
	2	1.20	0.71	
Post Operative Pain 12 Hourly	1	1.40	1.07	0.117
	2	1.03	0.67	
Post Operative Pain 24 Hourly	1	1.00	0.98	0.085
	2	0.60	0.77	

Postoperative pain was not statistically significant in both groups at 12 and 24 hours. however, the mean VAS of the two visits to the root canal was less than the individual visit group to the root canal after 12 and 24 hours. Correlation positive  $r = 0.222$  was not statistically significant in one visit group of the root canal ( $p = 0.239$ ). In two visits to the root canal group, the correlation was strongly positive, ie  $r = 0.803$  and also significant ( $p = 0.001$ ).

#### DISCUSSION:

The effectiveness of endodontic treatment between the researcher and the physician after the appointment is still ongoing according to multiple appointments in terms of pain after closure. An advantage for a visit or two, after visiting the root canal treatment for better results in two snapshot pain release, although the root canal was found to be associated with 6 hours of pain sealing after the visit, but after 12 and 24 hours. According to Figini L et al., Patients undergoing a single visit may experience a slightly higher incidence of pain after closure and are more likely to receive analgesics. Jalil Modaresi et al. In two visits, they found a low incidence of post-occlusive pain in single-visit endodontic treatment compared to endodontic treatment. This was supported by Albashaireh ZS et al. They were also seen to be significantly higher in group visits to the group of unique work pain postobturation in the shutter 24 hours. Previous studies have shown a strong positive relationship between preoperative and postoperative pain. Oginni and udoeye both procedures in the study room found that multiple visits were statistically significant as well as significant relationships between preoperative pain and post sealing. This study also had a statistically

significant correlation between preoperative pain and post sealing, supporting both this single and multiple visits.

#### CONCLUSION:

Although there was no advantage in comparing the root canal treatment of a canal in the first 6 hours and comparing the closing pain after two sessions, root canal treatment of the two visits gave better results in terms of postoperative pain. Congestion after 12 and 24 hours Although this study reported positive results in the treatment of the root canal of two visits to postobturation pain. However, single-visit endodontic treatment has been shown to be a safe and effective alternative to the treatment of two visits, especially in societies where patients fail after the first appointment to relieve pain.

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