



Unique Journal of Medical and Dental Sciences

Available online: www.ujconline.net

Research Article

COMPARISON OF INCIDENCE OF POST OBTURATION PAIN AFTER SINGLE VISIT ROOT CANAL TREATMENT BY USING CONVENTIONAL METHOD AND TWO DIFFERENT ROTARY SYSTEMS (PROTAPER AND HEROSHAPER)- AN IN VIVO STUDY

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Received: 28-9-2014; Revised: 27-10-2014; Accepted: 26-11-2014

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ABSTRACT

Aim: To study the *In Vivo* comparison of post obturation pain of patient after the treatment by using conventional, protaper and heroshaper files.

Application: To find out which system is useful for betterment of the patient. Summary of Proposed Research: In this study, we compared pain incidence after RCT by using conventional, protaper and heroshaper files.

Materials And Methods: 1) Endomotor 2) Protaper Files 3) Conventional Files 4) Heroshaper Files.

In this research 90 patients with age of 20 to 30 years with multirooted teeth for root canal treatment were selected.

Results and Discussion: The single visit root canal treatment performed with all 90 teeth. The patients were divided into 3 groups: Group1(30 patients), Group2(30 patients) and Group3(30 patients). Group 1 treated with conventional file technique. Group 2 treated with protaper files and Group 3 treated with heroshaper files at time interval of 12hrs, 24hrs and 48hrs. Pain was measured by visual analogue scale.

Conclusion: Pain associated with the single visit endodontic treatment with Heroshaper files was least followed by the Protaper and then Conventional.

Keywords: Conventional, Heroshaper, Protaper, Obturation, Endomotor.

INTRODUCTION

Endodontic Therapy in should be simple, predictable and time saving .RCT is preferred management modality for root canal infections. The execution of RCT is more challenging and demanding in molars for their unique multicanal system. Single visit RCT was tried to assess its viability in defense environment.

In recent years single appointment endodontics has gained increased acceptance as the best treatment for most cases.

Post-operative pain after endodontic procedures is an undesirable occurrence for both patients and clinicians¹. Pain affects patient's quality of life and success of dentist patients relationship². Patients might consider post-operative pain as a benchmark against which the clinician's skill are measured. It might undermine patient's confidence in their dentist or patient satisfaction with their treatment³. The occurrence of mild pain is relatively common even when the treatment has

followed the highest standards and should be expected and anticipated by patients¹. Hence compared the pain after single sitting root canal treatment by Conventional, Protaper, and Heroshaper files.

Objectives: To compare pain after single sitting root canal treatment by using conventional, protaper & heroshaper files.

MATERIALS AND METHODS

In this research 90 patients with age of 20 to 30 years with multirooted teeth for root canal treatment were selected. The single visit root canal treatment performed with all 90 teeth. The patients were divided into 3 groups: Group 1(30 patients), Group 2(30 patients), Group3(30 patients). Group 1 treated with conventional file technique. Group 2 treated with protaper files and Group 3 treated with heroshaper files. At time interval of 12hrs, 24hrs and 48hrs. Pain was measured by visual analogue scale.

RESULTS

Table 1: Survey of Pain In Patient

Files Used	No. of Patients	Pain		
		Mild	Moderate	Severe
Conventional	30	2	8	20
Protaper	30	5	19	6
Heroshaper	30	22	8	0

By using conventional file: Amongst 30 patients 2 patients have mild pain, 8 patients have moderate pain and 20 patients have severe pain.

By using protaper file: Amongst 30 patients 5 patients have mild pain, 19 patients have moderate pain and 6 patients have severe pain.

By using heroshaper file: Amongst 30 patients 22 patients have mild pain, 8 patients have moderate pain and No patients have severe pain.

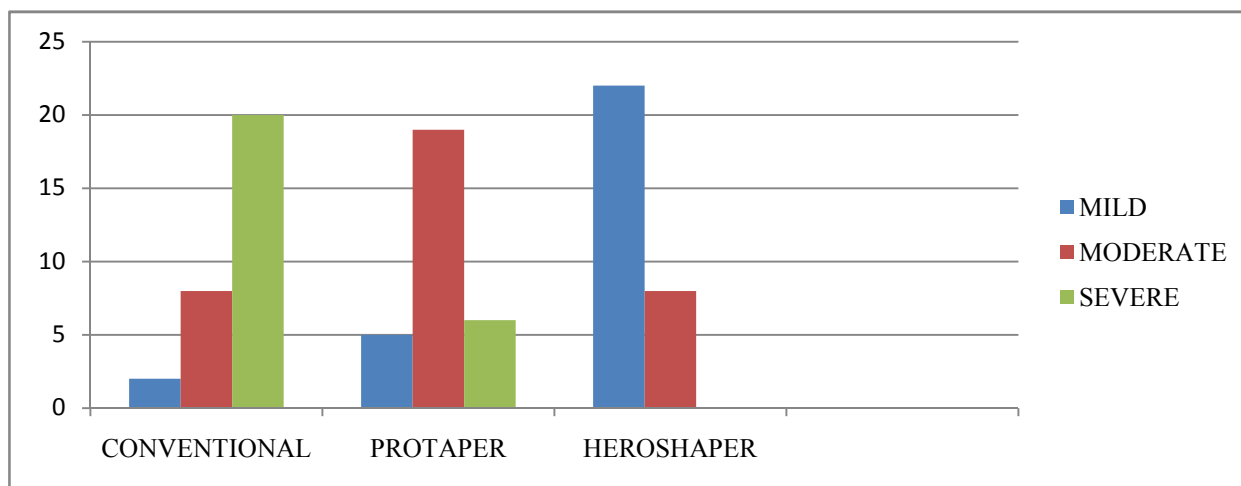
Table 2: Pain in Percentage

Files Used	No. of Patients	Percentage		
		Mild	Moderate	Severe
Conventional	30	6.66%	26.66%	76.66%
Protaper	30	16.66%	63.33%	20%
Heroshaper	30	73.33%	26.66%	0%

The overall incidence of post operative pain after single sitting RCT during the follow-up period of 12hrs, 24hrs, 48hrs was assessed according to Patients record in the VAS.

Post operative pain related to the hours: Differences were

statistically significant ($P=0.003$) between all the groups. Incidence of post operative pain was observed least in Heroshaper and high in Conventional at all the three time intervals.



Graph 1: Graphical presentation of Pain

DISCUSSION

One of the main problems in studying pain is the patients subjective evaluation and its measurement. For this reason, design of the questionnaire is critical and must ensure that it will be fully understood by patients and easily interpreted by researchers⁴.

In this report, a simple verbal categorization was used in the feedback form with 5 categories: 0:No pain, 1-2:Mild pain, 3-5:Moderate pain, 6-8:Severe pain, 9-10:Worst pain. These categories were easily understood by the patients.

It is well known that pain perception is a highly subjective and variable experience modulated by multiple physical and psychological factors⁵. Post-obturation pain is considered to be related with several factors, including pre-operative pain, infection, retreatment, intracanal medications and physical and chemical damage to periapical tissue. The lower incidence of post-operative pain in single visit root canal treatment might be attributed to immediate obturation, thereby to avoid passage of medications, repeated instrumentation and irrigation.

CONCLUSION

Pain associated with the single visit endodontic treatment with Heroshaper files was least followed by the Protaper and then Conventional. The selection of files plays the vital role in reducing the pain perception by patient.

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Source of support: Nil, Conflict of interest: None Declared