

**Comparison between TheEffect of Pulpotec and  
The Effect of Calcium Hydroxide Dressing on  
Interappointment Pain Relief on Symptomatic  
Posterior Teeth with Acute Pulpitis and  
Periodontitis**

**(Randomized Controlled Trial: Part 8)**

A Thesis

Submitted to the Faculty of Oral and Dental Medicine

(Cairo University)

In partial fulfillment of the requirement for Master Degree in

Endodontics

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2014

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# Acknowledgment

*First and foremost; I am always indebted to "**Allah**" the kindest and the most merciful.*

*I would like to express my deep gratitude and grateful appreciation to **Prof. Dr. Manar Yahia Fouda**, Assistant Professor of Endodontics, Faculty of oral and dental medicine, Cairo University, who gave me confidence, support and help to complete masters' thesis issue .you challenged me to look for solutions. I have learned to believe in my future, my work and myself.*

*I would like to gratefully acknowledge the support, the supervision and kindness of **Dr. Hany Samy Sadek**, Lecturer of Endodontics, Faculty of oral and dental medicine, Cairo University. His support and help enabled me to complete my work successfully.*

*Finally, endless thanks are extended to head of Endodontic Department, all my professors, colleagues and staff member of the Endodontic Department for their support and concern.*

# *Dedication*

*This thesis is dedicated to my parents who supported and guided me more than I can ever tell. I hope that this achievement will complete the dream that you had to for me all those many years ago when you choose to give me the best education you could.*

*To my sisters and friends who supported and helped me through the course of this thesis.*

*To my lovely daughter who inspired me to continue my path.*

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**List of contents**

	<b>Page</b>
<b>Introduction.....</b>	<b>1</b>
<b>The pico approach.....</b>	<b>3</b>
<b>Review of literature.....</b>	<b>4</b>
<b>Aim of study.....</b>	<b>37</b>
<b>Material and Methods.....</b>	<b>38</b>
<b>Results.....</b>	<b>57</b>
<b>Discussion.....</b>	<b>79</b>
<b>Summary .....</b>	<b>88</b>
<b>Conclusion.....</b>	<b>90</b>
<b>Recommendations.....</b>	<b>91</b>
<b>References.....</b>	<b>92</b>
<b>Appendix.....</b>	<b>118</b>
<b>Arabic summary.....</b>	<b>122</b>

## List of figures

<b>Figure No.</b>	<b>Subject</b>	<b>Page</b>
Fig. 1	CONSORT 2010 flow diagram of the trial.....	39
Fig. 2	Diagnostic Sheet.....	43
Fig. 3	Diagnostic Sheet.....	44
Fig. 4	Ethylchloride spray –cold pulp test.....	46
Fig. 5	Desensitron II Electric vitality test.....	46
Fig. 6(a)	Visual Analogue Scale (VAS).....	50
Fig. 6(b)	Visual Analogue Scale (VAS) continued.....	51
Fig. 7	Calcium Hydroxide Materials.....	53
Fig. 8	Pulpotec Materials.....	53
Fig. 9	Random Sequence Numbers Generation.....	55
Fig. 10	Bar chart representing mean age values in the two groups .....	58
Fig. 11	Bar chart representing gender distributions in the two groups.....	58
Fig.12	Bar chart representing examined teeth in the two groups.....	59
Fig.13	Bar chart representing clinical and radiographic findings in the two groups .....	60
Fig .14	Bar chart representing mean VAS in the two groups.....	62

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Fig.15	Line chart representing changes by time in mean VAS of the two groups.....	63
Fig. 16	Bar chart representing severity of pain in the two groups.....	66
Fig.17	Preoperative x-ray case report (1).....	68
Fig.18	Post-operative x-ray case report (1).....	69
Fig.19	1 month post-operative x-ray case report(1).....	71
Fig.20	Preoperative x-ray case report (2).....	73
Fig.21	Post-operative x-ray case report (2).....	74
Fig.22	1 month post-operative x-ray case report (2).....	76
Fig.23	3 months post-operative x-ray case report (2).....	77
Fig.24	6 months post-operative x-ray case report (2).....	78

## **List of Tables**

### **Table**

<b>No.</b>	<b>Subject</b>	<b>page</b>
Table 1	description of used material and devices.....	38
Table 2	success and failure criteria.....	52
Table3	Mean, standard deviation (SD), frequencies (n), percentages and results of Student's t-test and Chi-square ( $\chi^2$ ) test for comparison between demographic data in the two groups.....	57
Table 4	Frequencies (n), percentages and results of Chi-square ( $\chi^2$ ) test for comparison between clinical and radiographic findings in the two groups.....	60
Table 5	Mean, standard deviation (SD) values and results of Mann-Whitney U test for comparison between VAS in the two groups.....	61
Table 6	Mean, standard deviation (SD) values and results of Wilcoxon signed-rank test for the changes by time within Group A.....	62
Table 7	Mean, standard deviation (SD) values and results of Wilcoxon signed-rank test for the changes by time within Group B.....	63
Table 8	Frequencies (n), percentages and results of Chi-square ( $\chi^2$ ) test for comparison between severity of pain in the two groups.....	65



## **List of abbreviations**

<b>Ca(OH)<sub>2</sub></b>	Calcium Hydroxide
<b>PD</b>	Pulpotec
<b>RCT</b>	Randomized controlled trial
<b>ZNO</b>	Zinc oxide eugenol
<b>VAS</b>	Visual analogue scale
<b>NaOCL</b>	Sodium hypochlorite
<b>MTA</b>	Mineral trioxide aggregate
<b>CEM</b>	Calcium enriched mixture
<b>NEC</b>	New endodontic cement

# INTRODUCTION

## **Introduction**

**P**ulpitis and periodontitis is a condition in which the periodontium and the pulp of the tooth become inflamed by an irritant, causing pain and pressure in the tooth. There are varying degrees of pulpitis, ranging from mild to severe.

In mature teeth suffering from pulpitis, pulp tissue is usually removed and the root canals are cleaned, shaped and filled. Despite reported clinical success, endodontically-treated teeth become devitalized, brittle and susceptible to postoperative fracture or other complications, including re-infections due to coronal leakage or microleakage. From a biological point of view, the most desirable treatment outcome for any endodontic treatment is to preserve the vital pulp, thus promoting a normally functioning dentin/pulp complex.

Among the methods for preservation of affected pulp, vital pulpotomy for exposed permanent teeth is an option; pulpotomy is the strategy where teeth with large pulp exposure, or with infected pulp, all of the coronal pulp must be removed; a capping agent is placed directly on the exposed pulp to protect the underlying pulp from further injury. After pulpotomy treatment, the dental pulp within the root canal can be preserved.

Several pulp capping materials have been used, traditionally; calcium hydroxide has been the most common capping agent. Calcium hydroxide is antibacterial and disinfects the superficial pulp; however, there was several drawbacks related to calcium hydroxide, which led scientist to seek new material.

Pulpotec is a recent filling paste for simple, rapid and long-term treatment by pulpotomy of vital molars, both permanent and deciduous.

This study was preformed to compare the effect of Pulpotec to Calcium Hydroxide as pulp capping agent after pulpotomy of permanent teeth suffering from acute pulpitis with apical periodontitis, and graded their success based on presence or absence of pain or radiographic findings.

# **THE PICO APPROACH**

## **PICO Approach**

### **P (Problem, patient):**

Patient with symptomatic pulpitis with periodontitis.

### **I (intervention):**

Pulpotec used as interappointment dressing.

### **C (comparator):**

Calcium hydroxide used as interappointment dressing.

### **O (outcome):**

Interappointment pain relief measured by operator using visual analogue scale (VAS) and patient related (clinical and radiographic findings).

# **REVIEW OF LITERATURE**