First and foremost, I am greatly thankful to

ALLAH

for granting me the perseverance to accomplish this work.

I am greatly honored to express my **Special appreciation** to

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The purpose of this study was to :

Evaluate the effect of ultrasonic activation on the antibacterial effect of the following antibiotics:

1) Penicillin
2) Cephalosporin
3) Aminoglycoside

when used as root canal irrigants.

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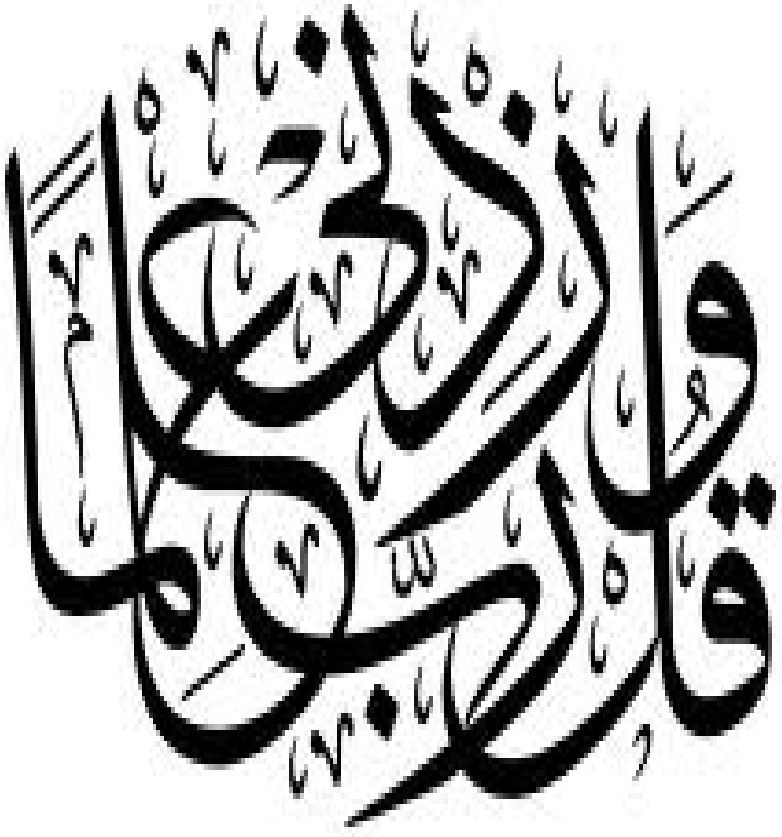
قال تعالى :
وقل رب زدني علماً




وقل رب زدني علما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الشريعة والسلام

Evaluation of Ultrasonic Application on Antimicrobial Effect of Different Antibiotics Used as Irrigants

(In Vitro Study)

Thesis Submitted to

The Faculty of Dentistry – Ain Shams University

In partial fulfillment for the requirements of

Master Degree in endodontics

By

Germeen Mohamed El-Sayed

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Ain – Shams University

Faculty of Dentistry

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Conclusions

From the results of this study it can be concluded that :

1 . Use of antibiotic as intracanal irrigation is superior than NaOCl in reduction of bacterial count in root canal in the presence or absence of ultrasonic application

2. Ultrasonic application during irrigation reduces bacterial count to minimum values in comparison to irrigation in absence of ultrasonic application.

3. Garamycin and Unasyn are superior to Velosef in reducing of bacterial count in root canal.

Recommendation

1. Further, in vivo investigation are recommended for evaluation of effect of antibiotics when used as irrigant for better mimicking of clinical situation.

2. Further investigation recommended for testing other type of antibiotics and different type of agitation methods.

3. Further investigation of the combined use of NaOCl and antibiotics in a single final flush protocol is recommended.

Clinical Relevance

The idea of using antibiotic as intracanal irrigant is growing up by time. however, its difficultly in tissue dissolution ,lubrication and chelating effect. This is may necessitate its use in combination with NaOCl and chelating agent in a single final flush protocol.

Supervisors

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