

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

# بسم الله الرحمن الرحيم





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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكرونيله



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# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها على هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



HANAA ALY



# "THE EFFECT OF NANO MINERAL TRIOXIDE AGGREGATE ON THE HEALING PROCESS OF PERIAPICAL TISSUES AFTER ENDODONTIC SURGERY AND ITS SEALING ABILITY AND ADAPTABILITY AS A ROOT-END FILLING MATERIAL"

#### Thesis

Submitted to the Faculty of Dentistry - Ain Shams University for Partial Fulfillment of the Requirements for Doctorate Degree in **Endodontics** 

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خَالُو لُ سُبُكَانَكَ لَا جِلْمَ لَنَا إِلاَّ مَا جَلُمْتَنَا إِنَّكَ أَنتَ الْعَلِيمُ الْنَكِيمُ

خَلَاقًاللَّهُ النَّالِكُ لَيْنَا

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All grateful words are not enough to express my feelings to:

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who are always supporting me in my life, for their lifelong inspiration for me to be the best and for their endless love and support in my hard times and who taught me perseverance and supported me in all stages of this study

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For Their endless support, supreme love, and absolute care

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# LIST OF ABBREVIATIONS

Abbreviation	Full term
?????	?????

### INTRODUCTION

Surgical endodontic treatment is an option for teeth with apical periodontitis and may be indicated for teeth with periapical pathology when nonsurgical retreatment is impractical or unlikely to improve the previous results or when a biopsy is needed<sup>(1,2)</sup>. Endodontic surgery procedure consists of the exposure of the involved root end, root end resection and root-end cavity preparation to receive a biocompatible root-end filling material. This root-end resection results in an exposure of the root dentin and the root canal filling material (gutta-percha). The placing of a root-end filling after root-end resection is mandatory to support bone regeneration. Various materials have been advocated for use as retrograde filling. An material should possess ideal endodontic retro-filling numerous characteristics such as biocompatibility to be well tolerated by periapical tissue, adhere, and adapt to the dentinal wall to prevent leakage of microorganisms and their by-products, and allow healing of the periapical tissues. Teeth treated with a root-end filling after apicectomy showed significantly better healing than teeth treated by smoothing of the orthograde gutta-percha root filling only. (3)

The main aim of root-end filling material is to be able to prevent the infiltration of bacteria into the root canals<sup>(4)</sup>, so root-end filling materials should have appropriate sealing ability and adaptability as the amount of microorganisms in the infected area is a key factor determining the healing or persistence of the apical lesion. <sup>(5)</sup>