

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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بالرسالة صفحات
لم ترد بالأصل



**The Effect of Different Antibiotics Disinfection Protocols
on Chemokines Expression in Mature Teeth with Chronic
Apical Periodontitis.
(An immunohistochemical animal study)**

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List of Abbreviations

BSA:	Bovine Serum Antigen
CFU:	Colony Forming Unit
CH:	Calcium Hydroxide
CP:	Ciprofloxacin
DAP:	Double Antibiotic Paste
ECM:	Extracellular matrix
ELISA:	Enzyme linked immunosorbant assay.
EMMPRIN	Extracellular metalloproteinase inducer
Foxp3	Forkhead box p3 Transcription factor
HDPF	Human dental pulp fibroblast
IFN γ	Interferon Gamma
IgG	Immunoglobulin G
IL-	Interlukin-
LSTR	Lesion sterilization and tissue repair.
MCP	Monocyte chemotactic protein
MIP	Macrophage inflammatory protein
MMP-	Matrix metalloproteinase-
PCR	Polymerase chain reaction
PBS	Phosphate-buffered saline
qRT-PCR	Quantitative real time polymerase chain reaction
RANKL	Receptor activator for nuclear factor kappa-B ligand
REP	Regenerative endodontic procedures

ROR γ t	RAR (Retinoic acid related)-orphan receptor gamma
RT-PCR	Real time polymerase chain reaction
SCAP	Stem cells of the apical papilla
T reg	T regulatory cells
TAP	Triple antibiotic paste
TGF- β	Transforming growth factor beta.
Th1/2/17	T helper 1/ 2/ 17
TIE	TGF- β Inhibitory element
TIMP	Tissue inhibitors of metalloproteinases
TNF- α	Tumor necrosis factor alpha

Introduction

With the continuous advancements in tissue engineering and stem cell technology, root canal treatment concepts have been shifted to attempted tissue regeneration; that is to regenerate pulp like or more ideally actual pulp tissue inside the canal space, while maintaining the basic concepts of proper disinfection and proper canal seal. This will result not only in preserving the tooth as a structure, but also restoring the tooth functionally and histologically with almost normal architecture. In long standing cases however, where the pulp becomes necrotic, bacterial infection affects the periapical tissues resulting in alveolar bone destruction and degradation of several extracellular matrix components, manifested clinically as apical periodontitis and later as a periapical lesion. The host immune response involved in this process is complex and involves the recruitment of inflammatory cells and the production of variable cytokines, enzymes and other bioactive substances, whose monitoring may give indications about the degree of progression or regression of this lesion. Examples of these cytokines include interleukin 17 (IL-17) and transforming growth factor (TGF- β) which are major contributors to the inflammatory process. Other substances of interest on the extracellular level include the enzyme matrix metalloproteinase13 (MMP-13) which degrades extracellular matrix.

These periapical reactions also pose a challenge for the regenerative endodontic procedures (REP) due to the necessity to properly disinfect the canal space and minimize or eradicate the unfavorable immunological reaction to make way for the