بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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

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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

MONA MAGHRABY

Comparison of the Efficacy of Prophylactic Intraligamentary injection of Piroxicam versus Mepivacaine for management of Post-endodontic pain in posterior teeth

(Double Blind Randomized Clinical Trial)

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Dedication

To my beloved husband, **Dr Walid**, thank you for your extraordinary support, love, encouragement, and patience.

To my lovely Parents, to whom I owe everything I achieved. They have always been standing behind any achievement I made throughout my life.

To my brothers and my children, thank you for your love, that has been the major spiritual support in my life.

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Introduction

Introduction

Pain after root canal treatment usually happens with various intensities and degrees that depends on multiple factors as age, gender, type of tooth, pre-operative pain, vitality of the tooth and various medications used [(1)].

This postoperative pain is an unpleasant situation for both the dentist and the patient which may affect the trust of the patient in his dentist. A number of factors have been found to be related with the risk of post endodontic pain. The microbial factor has been found to be the most common reason for incidence of post endodontic pain[(2)].

The pain results from instrumentation and/or obturation of the canals that may cause chemical or mechanical injury to pulpal or periapical tissues. Although the pain may not be considered as indication for failure, relief of this pain is much more important to the patient than the success or failure of the treatment[(3)].

Symptomatic apical periodontitis is inflammation which occurs in the apical periodontium, leading to clinical symptoms in the form of painful response to biting and percussion. It may or may not be associated with an apical radiolucent area and could result from inflamed pulp or from previous asymptomatic apical periodontitis. Several studies agreed that symptomatic cases have higher incidence of post-operative pain [(14)]. The incidence of post-operative pain associated with previously symptomatic teeth was 15.9%, compared with 7.1% for asymptomatic teeth[(40)].

Many procedures are done to prevent post-operative pain including the use of various instrumentation techniques, intracanal

medications, irrigation system and the use of pre-operative drugs e.g. opioids, non-steroidal anti-inflammatory drugs (NSAIDs) and antibiotics [27,28,29].

Non steroidal anti -inflammatory drugs are now widespread all over the field of dentistry and they have been proved to be very effective in controlling post endodontic pain[4]. As following endodontic therapy is usually linked to the inflammatory process as well as additional central mechanisms.

NSAIDs are generally considered to be the most effective treatment for inflammation and hence inflammatory pain[5]. They can control the pain by blocking the inflammatory mediators which in turn will inhibit the process of inflammation and reduce or prevent the pain[5].

Piroxicam is a non steroidal anti- inflammatory drug (NSAID) which has the ability for the treatment of pain, fever and inflammation in the body although its mechanism of action is incompletely known[6]. The pain after endodontic treatment is commonly severe in the first 24 hours after treatment, and reduces gradually until commonly disappearing after 7-10 days in most cases. Since piroxicam has a half-life of 50 h in the plasma, it will be effective in controlling the most intense pain which occurs after endodontic treatment [6,7].

Intraligamentary injection of local anesthesia was found to be an effective and easy way to control severe pain during endodontic treatment particularly in mandibular teeth which are considered more difficult than maxillary teeth to be properly anesthesized[8]. But the main problem in achieving effective anesthesia in patients with irreversible pulpitis and symptomatic apical periodontitis is the resistance of voltage gated sodium channels to local anesthetics and these channels are sensitive to

prostaglandins, so the usuage of NSAIDs may be effective as a premedication to support the action of local anesthetics[9]

Also the patients which were diagnosed with acute apical periodontitis showed a significantly increased need for additional medication after completion of root canal treatment compared with all other periapical diagnosis, as patients with severe preoperative pain have a higher tendency for severe operative and post-operative pain than patients that have no or mild pain[10&11].

Therefore, it was of interest to assess the effect of prophylactic intraligamentary injection of piroxicam on the management of postendodontic pain in mandibular molar teeth with acute irreversible pulpitis and symptomatic apical periodontitis after single visit root canal treatment.

Review of Literature