УДК [61+615.1] (043.2) ББК 5+52.81 А 43 ISBN 978-985-21-1864-4

## Nour Osman, Zahra Hadizadeh

## ASSESSMENT OF CLINICAL EFFECTIVENESS OF TOPICALLY APPLIED METRONIDAZOLE GEL 1% IN THE MANAGEMENT AND DURATION REDUCTION OF POST-EXTRACTION ALVEOLITIS

Tutor: Maryam Masoumzadeh

Department of Maxillofacial Surgery and Facial Plastic Surgery Belarusian State Medical University, Minsk

**Relevance.** Alveolitis is a commonly seen post-operative complication during the wound-healing period after permanent tooth extraction. It is associated with severe pain developing 2 to 3 days postoperatively with or without halitosis, a socket that may be partially or totally devoid of a blood clot, also can be highly prone to infection and increased postoperative visits. Its incidence is approximately 3% for all routine extractions and can reach over 30% for impacted mandibular third molars. A number of methods have been suggested in the literature as to how this condition may be prevented and managed. The result of this article were carried out in clinic to investigate how this painful condition can be managed.

**Aim:** in this study, we evaluate the efficacy of intraalveolar placement of metronidazole gel 1% on the incidence of alveolitis after surgical extraction of teeth in the Healthcare Institution «City Clinical Polyclinic N 8», Minsk.

Materials and methods. in this research we divide 10 randomly patients with a diagnosis of alveolitis in two groups, the first group contains 5 people which were treated according to the conventional treatment plan in the following way: start with injection of infiltration anesthesia (Articaine (4%) with epinephrine (1:100000), surgical cleaning of the socket with alveolar curettes, afterwards irrigation with chlorhexidine 2%- 10 ml disposable syringe and repeat it several times to be sure there is no pus and then in the bottom of the socket the Alvostase sponge (hemostatic and antiseptic alveolar dressing) is placed inside the socket. The second group contains 5 people that were treated by using Metronidazole gel 1% and chlorhexidine 2% in the following way: start with injection of infiltration anesthesia (Articaine (4%) with epinephrine (1:100000) surgical cleaning of the socket with alveolar curettes, after it irrigation with chlorhexidine 2% - 10 ml disposable syringe and repeat it several times. After making sure the socket is completely clean spread Metronidazole gel 1% was applied directly into the extraction socket using a sterile blunt-tipped syringe to ensure deep and accurate placement in the socket then place the Alveostase sponge into the socket

Results and their discussion. The analysis of the results after treatment for both groups showed difference in the duration of painful symptoms and healing process; the group treated conventionally, severe pain lasts up to 48 hours and complete healing takes up to 4 days, but for the group treated with the and metronidazole gel 1% treatment plan, severe pain resolves within 24 hours after treatment and is complete healing within 2 days. The use of metronidazole gel 1% significantly reduced duration of post-extraction Alveolitis.

**Conclusion.** Based on the results, use metronidazole gel 1% makes it possible to eliminate the inflammatory process management faster and to reduce the treatment duration of post extraction alveolitis.