

**Republic of Iraq
Ministry of Higher Education
and Scientific Research
University of Baghdad
College of Dentistry**



**Effect of Submucosal Dexamethasone Injection on
The Postoperative Sequelae after Surgical
Extraction of Impacted Lower Wisdom Teeth
(clinical study)**

A Thesis

Submitted to the council of the College of Dentistry at the University
of Baghdad in partial fulfillment of the requirements for the degree of
Master of Science in Oral and Maxillofacial surgery.

Submitted by
Zainab Wahhab Hadi
B.D.S.

Supervised by
Assist. Prof. Sahar Shakir Al-Adili
B.D.S., M.Sc.
Oral and Maxillofacial surgery

2020 A.D.

1441 A.H.

Abstract

Background: Different methods were attempted by many researchers to reduce postoperative inflammatory response following surgical extraction of impacted lower wisdom teeth because this is a very common procedure and is usually associated with pain, difficulty in mouth opening and swelling.

Aim: To assess the effect of submucosal injection of 4mg/1ml dexamethasone on reduction of postoperative pain, facial swelling and trismus following the surgical extraction of impacted lower wisdom teeth.

Materials and methods: Forty patients were selected to be included in this randomized clinical study with a total number of 42 impacted mandibular third molars, they divided randomly into two groups, control and study group of twenty patients for each, 5 minutes after local anesthesia injection patients in the study group had received 4mg/1 ml submucosal injection of dexamethasone, while patients in the control group received 1ml placebo (normal saline) five minutes after local anesthesia administration, then surgical removal of impacted teeth was done after further five minutes. evaluation of mouth opening and swelling was done preoperatively as a baseline and on the second and seventh post-operative days after surgery, while pain was scored daily until the 7th postoperative day by the patient according to the numerical rating scale. Every one of these factors in addition to the time of surgery were compared between the two groups.

Results: study group showed less limitation in mouth opening than control group but there was no statistically significant difference between them. however, study group showed a **significant reduction in pain** scores on the first and the second postoperative days and a **significant decrease of swelling** compared with the control group at the 48 hours follow up.

Conclusion: submucosal injection of dexamethasone was effective in minimizing facial swelling and pain after surgical extraction of impacted

mandibular third molar. Furthermore, it had reduced the severity of trismus but not to a significant level.