



**“EFFECT OF INTRAVENOUS VERSUS INTRAMASSETERIC
INJECTION OF DEXAMETHASONE ON POST OPERATIVE
SEQUELAE FOLLOWING SURGICAL EXTRACTION OF
IMPACTED LOWER THIRD MOLAR”**

by

DR. DINESH .D. S

6. 861

Dissertation submitted to the
Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka

In partial fulfillment
of the requirements for the degree of

MASTER OF DENTAL SURGERY (M.D.S)

in

ORAL AND MAXILLOFACIAL SURGERY

Under the guidance of

DR. BHUSHAN JAYADE MDS, FDSRCS, FFDRCSI.

**DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY
S.D.M. COLLEGE OF DENTAL SCIENCES & HOSPITAL**

DHARWAD

APRIL 2012



ABSTRACT

Aim and Objective: The purpose of this study is to evaluate the efficacy of intravenous and intramassetric injection of 8mg dexamethasone to reduce pain, swelling and trismus following surgical removal of impacted lower third molars.

Material and Methods: A total of 45 patients who were treated for surgical extraction of impacted lower third molar in the Craniofacial Surgery & Research Centre, Department of Oral & Maxillofacial Surgery, S. D. M College of Dental Sciences and Hospital, Dharwad from 1st September 2009 to 31st May 2011 were included in the study. This was a Prospective Randomized controlled Study on healthy patients in the age range of 18yrs to 40 years. Patients were randomly divided into three equal groups of 15 each. One group acted as a control group while the other two groups were assigned in the intravenous and intramassetric categories. Procedures were done by one operator and all the patients postoperatively were given antibiotics and similar analgesics. The pain was assessed subjectively on a 10 point visual analogue scale on first, third and seventh post-operative day. The objective assessment of trismus was done by unforced oral aperture opening measured with divider, and silk thread was used to record the tragus-lip commissure, onion-lip commissure and gonion-external canthus of the eye to assess the swelling. The measurements were made pre operatively and first, third and seventh post-operative day.

Results: In this study the intramassetric injection of 8 mg dexamethasone had better pain controlling ability in the immediate post-operative period when used locally as compared to its use intravenous or no use at all. The swelling in all the three groups

reduced gradually till the seventh postoperative day but was persisting in intramassetric group. Intramassetric injection of Dexamethasone gives the best result in terms of trismus. Although mouth opening reduces on the first post-op day it is less compared to the intravenous and control groups. The swelling in all the three groups reduced gradually till the seventh postoperative day but was persisting in intramassetric group.

Conclusion: 8mg dexamethasone injection in the masseter region is comparatively much better in reducing the pain and trismus than 8mg dexamethasone intravenously for the extraction of mandibular impacted third molar .

Key words: extraction of mandibular impacted third molar, 8mg dexamethasone injection, intramassetric injection, intravenous injection, swelling, pain and trismus.