Abstract

Does extraction of third molars at the time of orthognathic surgery increase intra-operative and peri-operative complications? - A follow-up study

Introduction:
Third molar extractions are traditionally performed prior to orthognathic surgery. In a preliminary report, we showed that removal of third molars at the time of orthognathic surgery does not lead to increased complications or perioperative problems. The purpose of this follow-up study is to test these findings using a larger patient cohort.
Methods:
A retrospective analysis of patients who underwent orthognathic surgery from 2013-2015. Two groups, concurrent and previous extraction (E3M and PE3M), were stratified. The occurrence of unfavorable splits, infection, bleeding, malocclusion and hardware failure were the primary outcome variables. Pearson's chi-squared tests were performed to determine if there was an association between the simultaneous removal of third molars and these variables. Procedure time, post-operative pain and length of stay were the secondary outcome variables. Two tailed unpaired t-tests were performed to determine the effect of extractions on these measures.
Results:
157 patients were included. 70 had their third molars extracted at the time of surgery, 87 did not. The only intraoperative complication was one unfavorable split, in the PE3M group. This was not statistically significant (p=0.368). There were no cases of uncontrolled bleeding, inferior alveolar nerve transection, or anesthesia complications. One patient in each group experienced a post-operative infection requiring additional treatment. Mild post-operative bleeding, controlled with local measures, was encountered in 1 patient in the E3M and 2 patients in the PE3M group. This difference was not statistically significant (p=0.692). One patient in each group experienced a post-operative malocclusion. There was one case of hardware failure in the PE3M group, which was not statistically significant (p=0.368). Procedure time was not considerably increased when third molars were extracted. There was no statistically significant difference in post-operative pain (p=0.538) or length of stay in the hospital (p=0.979) between both groups.
Conclusions:
This study confirms that removing third molars concurrently with orthognathic surgery does not increase risk of adverse outcomes or complications, nor does it significantly influence hospital course.

References:
Steinbacher DM, Kontaxis KL. Does Simultaneous Third Molar Extraction Increase Intraoperative and Perioperative Complications in Orthognathic Surgery? J Craniofac Surg. 2016 Jun;27(4):923-6.