

ridge augmentation. However, they have some drawbacks such as long treatment period, necessity of donor site and expensive cost etc. In contrast, we have applied split crest and socket lift technique to atrophic alveolar ridge and continued reporting good results for years.

**Objectives:** The aim of this pilot study is to clarify the clinical significance of split crest combined with socket lift procedure.

**Methods:** Split crest combined with socket lift procedure: The narrow alveolar ridge was spread by flat chisel, and socket lift was performed by flat ended endo-mill reamer. Finally, the implant was placed with ordinary procedure. Case 1:69-year-old woman, the right maxillary 1st premolar, and 5 mm in diameter implant was placed. 9 years' follow-up was continued. Case 2: 66-year-old man, the left maxillary 1st premolar, and 4 mm in diameter implant was placed. 5 years' follow-up was continued. Case 3:64-year-old woman, the right maxillary premolar, and 4 mm in diameter implant was placed. 4 years' follow-up was continued.

**Findings:** There were no failures in all cases.

**Conclusion:** Generally, the patients tend to keep away from radical and longtime treatment. Split crest combined with socket lift procedure would make it possible to place implants without any donor sites and could be expected better clinical outcomes. Finally, it was considered that more clinical cases would be necessary to confirm the best clinical outcomes.

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#### **Incidence of peripheral nerve injury in oral maxillofacial surgery: a restrospective clinical study**

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IDM

**Background:** The most severe complication after the removal of mandibular third molars and implants placement in mandibular posterior region is the injury of inferior alveolar nerve. This complication is rather uncommon (0.4% to 8.4%) and most of it is transient. However, in some cases persist for longer than 6 months, which can leave various degrees of long-term permanent disability and is necessary a good the control of patients.

**Objectives:** The objective of this study was to discuss the type and incidence injuries of inferior alveolar nerve (IAN) based in a clinical retrospective report.

**Methods:** Patients of author clinic were selected and divided in two groups, Group 1: Patients with impacted mandibular third molars and Group 2: Patients with edentulism of mandibular posterior region. The patients of two groups were submitted to surgical procedures to remove impacted third molars and to the placement of implants in mandibular posterior region respectively.

**Findings:** Between the period of January 2007 to August 2017, 1203 mandibular third molars were removed of 934 patients (Group 1) and between the period of January 2004 to January 2017, 1192 implants were placed mandibular posterior region of 396 patients (Group 2). A total of twenty- three patients, eleven (0.9%) of Group 1 and twelve (1%) of Group 2, presented neurosensory disturbance. The patients were controlled and treated during a period to reducing of nerve injury.

**Conclusion:** The results of the current study which concluded that was a low incidence of nerve injury in the two groups of patients.

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#### **Dentoalveolar**

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#### **Celecoxib versus ibuprofen in controlling postoperative symptomatology of third molar extraction: a randomized double-blind clinical trial**

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**Background:** The third molar surgery causes discomfort to the patient, therefore control of the signs and symptoms of pain, swelling, trismus, and quality of life is highly important.

**Objectives:** To compare the postoperative effects of celecoxib and ibuprofen on pain, swelling, trismus and life quality of patients submitted to extraction of impacted third molars.

**Methods:** Fifteen patients were submitted to extraction of impacted third molars, right and left, at different times. Oral dexamethasone (8 mg) was given preoperatively, and for postoperative analgesia, oral celecoxib was administered for one side tooth extraction and ibuprofen for the other. Pain, swelling, trismus and life quality were scored with a visual analogical scale (VAS), facial linear measurements and Oral Health Impact Profile questionnaire (OHIP-14).

**Findings:** Trismus did not significantly differ between groups. Angle of mandible to nasal border was significantly less in the ibuprofen group at 0.5 and 48 h. OHIP-14 score only differed

(lower) for ibuprofen at 48 h. Pain VAS was lower in the ibuprofen group at 4, 8, 24, 48 and 72 h. Swelling VAS was lower in the ibuprofen group at 2, 6, 12, 72 and 96 h. Rescue medication was more often in the celecoxib group, but not significantly, considering the number of tablets used.

**Conclusion:** Celecoxib (200 mg/day) performance was similar compared to ibuprofen for trismus but worse for swelling, pain and life quality parameters.

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### Homeopathic arnica montana in reducing edema and pain following third molar extraction

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**Background:** Surgical removal of impacted third molars results in tissue trauma often accompanied by swelling and pain. Oral analgesics is standard treatment for postoperative pain, however prescriptions for medications for facial swelling following surgery vary and are usually limited to corticosteroids. Arnica Montana is a homeopathic medication that has been cited in the plastic surgery literature to reduce postoperative swelling.

**Objectives:** The objective of this study is to compare differences in postoperative edema and pain experienced by subjects treated with homeopathic Arnica montana versus subjects receiving matching placebo.

**Methods:** The study is a randomized double-blinded study in two groups. All patients will have routine, non-emergent, impacted third molar extractions. Each patient will then be given either Arnica Montana, or placebo, to be taken preoperatively and for 4 days postoperatively. They will also be given a medication diary to record pain scores, and medications taken. 3D images taken pre and post operatively will be used to assess swelling.

**Findings:** A total of 20 patients (10 in each group) have been enrolled in this ongoing study. There is an equal distribution of gender, and degree of impaction between the groups. Results show reduced swelling in the Arnica group (5.98 cc vs 11.86 cc in the placebo group), reduced pain scores in the Arnica group (23 vs 46 in the placebo), and less use of opioid analgesics in the arnica group (3.5 tablets vs 5 in the placebo group).

**Conclusion:** Arnica Montana can be used to reduce postoperative pain and swelling after third molar surgery

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### Clinical aspects of the anatomical correlation between mandibular canal, inferior third molar and sensitive alterations of the inferior alveolar nerve

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**Background:** Inferior third molar (ITM) removal surgery is the most frequent procedure in oral surgeons' clinic. This procedure involves some risks and trans or postoperative complications, such as paresthesia of the inferior alveolar nerve (IAN), which is one of the most severe complication. In order to reduce the incidence of paresthesia, a pre-surgical planning is necessary, being imaging exams, panoramic radiography (PR) and cone beam computed tomography (CBCT), are essential for this.

**Objectives:** Correlate the position, format and distance of the mandibular canal (CM) relative to the inferior third molar, in the CBCT; signals of close relationship (visualization of IAN or intra-alveolar hemorrhages) during the surgery and associate them with the incidence of paresthesia of the IAN.

**Methods:** All molars were classified according its position to the CM and impaction's degree in PR and CBCT. During the surgery, findings as alveolar hemorrhage or visualization of the IAN were recorded. In the postoperative, all patients were submitted to tests to find out signals of paresthesia.

**Findings:** There were 109 ITM. A positive association were found between the visualization of the inferior alveolar bundle/excessive bleeding with the position of ITM, occurrence of paresthesia, position and format of the CM on CBCT.

**Conclusion:** The exposure of the NAI during the impacted tooth removal surgery can be predicted when the CBCT is analyzed. Factors such as depth of tooth inclusion and CM flatness are related to NAI exposure and, consequently, the occurrence of paresthesia.

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### Risk factors associated to maxillary tuberosity fracture during upper third molar extraction

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**Background:** Third molar extraction is a relatively common procedure in the clinical practice of oral maxillofacial surgeons. Some complications are associated to the procedure, especially the maxillary tuberosity fracture.

**Objectives:** This study has the objective of enumerating the main risk factors that may be related to fractures of the maxillary tuberosity during upper third molar extractions.

**Methods:** Through clinical and radiographic assessment, comparisons were made between the incidence of maxillary tuberosity fracture and: 1) degree of eruption of the third molar, 2) root tooth morphology, and 3) characteristics of tuberosity limits in order to justify the etiology of these fractures. Patients data analysis followed STROBE guidelines and chi-square and Fischer's exact tests were used to compare categorical variables.

**Findings:** Two hundred and fifty-two teeth were removed, and 28 cases of tuberosity fractures were found (11.1%). Twenty-six of these were "slight" fractures and 2 patients had "moderate" type of fractures. There was no "severe" fracture. No postoperative complication was observed. Erupted teeth showed an increased risk for tuberosity's fracture. Tooth with curved or divergent roots demonstrated higher incidence of associated tuberosity fracture. Tuberosity morphology had no association to the occurrence of fractures

**Conclusion:** This study concluded that the main risk factors associated to maxillary tuberosity fracture were the degree of dental eruption and root morphology, and dentist should be aware of the manage of this event in order to avoid possible postoperative complications.

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