

Treatment of Planning Mandibular Ramos Fracture: Research Article

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Abstract

Considering this important functions of Mandibular bone, it is utmost important for the surgeons should not only treat function but also consider the esthetics together. The purpose of this article is to study the fracture pattern of Mandibular ramus, which is rare and to devise a classification proposed by different authors and to facilitate management. The Ghani method is traditional method by using grinder made up of wood or stone. In this study we have reported that whether the processing method alters its physicochemical properties or Nutritional value of the oils. For this study, each one samples from above said methods .

Keywords

Sesame oil, traditional methods, ghani, expeller pressing.

The mandible is the largest and strongest bone of the face but it is very frequently fractured (second to the nasal bone) because of its position. Mandibular fractures account for twice the number of midface fractures which comprise the majority of injuries treated by an oral and maxillofacial surgeon. The incidence of ramus fractures is quite low among mandibular fractures and rank just above the least encountered fractures of the coronoid and alveolar processes^[3].

Etiology (epidemiology)

The etiology of mandibular fractures varies from time to time, culture to culture. In developed countries, vehicle and sport accidents are main causes of mandibular fractures, while in developing countries and rural areas, inter personal violence, gunshot wounds, and falls in foregrounds^[1].

Biomechanics

These forces cause displacement of fragments or may stabilize the fragment. The temporalis, masseter, and medial pterygoid muscle pull are responsible for vertical displacements of fragments. Horizontal displacements are mainly caused by lateral and medial pterygoid muscle pull. Some muscles have complex force on fragments such as mylohyoid, digastric, and geniohyoid which have a torsion effect on fragments. Champy and co-workers described a zone of tension in the alveolar part of the mandible and a zone of compression on the lower border.



Figure 1: Champy's principle of osteosynthesis lines^[1]

Classification of Mandibular ramus fracture

They have classified the Mandibular ramus fracture as a Classification Mandibular Ramus Fractures. Type I: Vertical/oblique fracture line extending from the sigmoid notch to either the inferior border or angle of mandible. Type II: Vertical/ oblique fracture line extending from coronoid process to either the inferior border or angle of mandible. Type III: Horizontal fracture line extending from anterior border to posterior border of ramus of mandible. Type IV: Oblique fracture line extending from posterior border of ramus to inferior border of mandible (separating the angle segment). Type V: Comminuted fracture of ramus of mandible (may cause isolated fractures of the coronoid, condyle, and the angle of mandible)^[3]

Evaluation

Initial Assessment Patients should be assessed in accordance with the Advanced Trauma Life Support protocol. Life-threatening injuries should be recognized and treated accordingly.

Radiographs

Most patients with mandible fractures, particularly in the setting of polytrauma, present to an emergency room and undergo initial computed tomographic (CT) imaging to evaluate for cervical spine (C-spine) and other concomitant injuries^[2]. Although panoramic tomography used to be the gold standard, is cost-effective, and useful in the assessment of dental trauma, certain fracture patterns may be missed, particularly in the posterior mandible^[2].

Examination

Tooth extraction is recommended if the tooth is (1) luxated from its socket and/or interfering with fracture reduction, (2) fractured, (3) has advanced dental caries carrying a significant risk of abscess, (4) has advanced periodontal disease with mobility that would not contribute to establishing stable occlusion, or (5) has existing pathology such as cyst formation and pericoronitis. There are certain situations in which teeth in the fracture line can be left in place as they can provide a larger repositioning surface. They can also be used for the application of tension bands in certain cases and do not cause delayed healing when treated with a closed reduction^[2].



Discussion

A less precise bony reduction may be acceptable if there are no opposing teeth or in an edentulous mandible. This can be achieved with MMF alone or in combination with surgical exposure and internal fixation. The controversy of treating ramus fractures by either ORIF or closed treatment can be debated and discussed at length as there is lack of evidence based literature for its management till date^[5].

Conclusion

Based on the analysis of the organoleptic and physicochemical properties are important studies to determine the physical, chemical state and quality of the oil. The analysis report reveals that traditional method (Ghani) of preparation of sesame oil is having more nutritional value when compared with other methods (solvent and Expeller pressing methods). The sesame oil (sample-T) which is prepared by Ghani might be recommended for human consumption to promote their health and longevity.

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