

## Who should take charge of maxillofacial surgery?

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The area of oral and maxillofacial surgery covers minor oral surgery, such as extractions, apical surgery, preprosthetic surgery, implant surgery, and others; oncology and reconstructive surgery; traumatology; salivary gland disease; infections; craniomaxillofacial deformity; temporomandibular joint (TMJ) disease; and adjunctive cosmetic facial surgery<sup>1</sup>. Maxillofacial surgery aims to achieve both esthetic and functional restoration. Normal articulation and chewing are most important to improving the functions and the quality of life. To achieve an esthetic and functional restoration, it is essential to understand and restore dental occlusion and the TMJ functions. Recently, some surgeons in charge of maxillofacial surgery tend to focus on esthetics and neglect functions. Maxillofacial surgery has generated esthetic improvement but been followed by complications, such as malocclusion and temporomandibular disorder (TMD), which lowers the quality of life for patients and places them in mental distress. Maxillofacial traumatology often focuses on the reduction and fixation of fractures alone and neglects TMJ and occlusion or involves operations based on incorrect concepts, causing functional deformity<sup>2,3</sup>. Unethical treatments can be performed through prosthetic or orthodontic treatment of malocclusion caused by incorrect fracture reduction when surgeons and general dentists have identical, erroneous therapeutic concepts. With a poor concept of TMJ, maxillofacial surgery can be followed by serious problems, such as a shift in the condyle position, disc displacement, osteoarthritis,

and progressive condyle resorption. For example, mandible advancement surgery aimed simply at esthetic improvement can cause serious complications due to progressive condyle resorption in mandible retrognathism patients with symptoms of osteoarthritis or idiopathic condylar resorption<sup>4-6</sup>. Without a concept of the TMJ anatomy and functions, inserting botulinum toxin and/or filler recklessly into the lower face for the esthetic purpose can adversely affect the TMD-related masseter and temporalis muscles and facial and trigeminal nerves, and cause complications, such as nervous dysfunction and mouth opening limitations. A total of 47 journals concerning maxillofacial surgery were obtained through PubMed in 2015; the articles concerning TMJ, maxillofacial trauma, and orthognathic surgery that had been published under the leadership of M.D. and D.D.S. were counted. An overwhelming majority of articles were published under the leadership of dentists: the TMJ-related journals included 45 D.D.S.-led articles and 11 M.D.-led ones; the journals concerning maxillofacial trauma included 38 D.D.S.-led articles and 8 M.D.-led ones; and those concerning orthognathic surgery included 46 D.D.S.-led articles and 4 M.D.-led ones. Dentists with an established concept of dental occlusion and TMD are strongly involved in the relevant areas and participate in an overwhelming majority of academic research activities.

Regardless of the medical and/or dental parts, excellent surgeons with an established academic foundation need to take charge of surgery. On the other hand, it is important to note that all the dentists and doctors (oral and maxillofacial surgeons, plastic surgeons, otolaryngologists, dermatologists, etc.) in charge of maxillofacial surgery need to give qualitative treatment based on full knowledge of the dental occlusion, physiology, anatomy, functions, and pathology of TMJ.

### Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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