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# NEW DATA ABOUT THE MENTAL REGION OF THE MANDIBLE AND ITS CLINICAL USEFULNESS

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**Introduction.** The chin is a thickening along the lower edge of the mandible that only belongs to humans. Various causes of the chin appearance in humans have been discussed, including the reduction and straightening of the alveolar process; the unequal growth of the alveolar and basal portions of the mandible during changes in the dentition; the divergence of the mandibular ramuses, resulting in the need to strengthen the frontal component; and the appearance of speech, among others. However, in our opinion, the formation of the chin is primarily associated with the appearance of an upright posture, speech, and the necessity for a stronger fixation of the mento-hyoid-pharyngx-laryngeal complex.

There are peculiarities of the formation and ossification of the chin as a relatively new evolutionary formation. The blood supply of the mental region has its features, too.

**Material and Methods.** The dissection of foetuses' mandibles, the dissection of the sublingual areas of adult cadavers, clinical assessment of patients after orthognatic operations and mandibular fractures.

**Results.** During the dissection of the mandibles of 3-month and 6-month foetuses, a triangular area of bone with sloping sides on the vestibular surface, with no bony connection to the body of the mandible and easily separated from it, was identified.

We made the dissection of the sublingual areas of a human, and found the branches of the sublingual arteries which entered the bone of the chin from the lingual side through the corresponding openings.

We found a peculiarity of the soft tissues innervation of the chin with the mylohyoid nerve. The mylohyoid nerve carries sensation from the skin of the chin, anterior mandibular teeth and medial portions of submandibular triangle. The zone of mylohyoid nerve innervation on the skin of the chin is most likely a formation derived from animals that has lost its original purpose. In the clinic we have observed the isolated injury of the mylohyoid nerve in 7 patients after orthognathic operations - Trauner-Obwegeser osteotomy of the mandible. It can be supposed that the mylohyoid nerve becomes injured by the internal part of the splited mandibular ramus during its shifting backwards. We have observed the similar clinical picture in some patients with the accidental fracture of the mandibular ramus.

**Conclusions.** The peculiarities of the “proper chin” include special formation, blood supply and innervation. The usefulness of these data for oral surgeons can be shown in different branches of maxillo-facial surgery, e.g. in traumatology, in oncology. The “proper chin bone” is resistant to toxic osteonecrosis and radioosteonecrosis of the mandible, also it doesn't become affected during ameloblastomas (different ontogenetic formation of chin and other mandibular regions).