

The morphology and morphometry of the bony infrastructure used for experimental studies of oral implantology in dogs

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Marked qualitative as well as quantitative alterations occur in the alveolar ridge following the loss of teeth. Thus, during the first year following tooth removal, there is a considerable remodeling of the bone tissue. It was reported, however, that despite this pronounced remodeling, the placement of implants in fresh extraction sockets allowed proper clinical healing. The dog mandible is a well used model for implant research both when placed in healed sites or in extraction sockets and defects. The jaw bone is similar to human bone and is of course of intramembranous origin. A draw back is that the areas used for implant placement most probably are subjected to chewing and biting forces which may have negative influence on the healing.

For the present study we used, according to the locally acting ethical rules, 5 fresh dog specimens from which the maxillae and mandibulae were drawn and serially cut at 10 µm; morphological and morphometrical data were recorded. The results offer the morphometrical background for experimental studies of oral implantology in dogs.

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The inferior lateral attic (the subincudal space): the topography

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Middle Ear Cholesteatoma spreads through anatomical passages that determine the surgical attitude.

The present study was performed in order to evidence and describe two of the most important topographical spaces of the middle ear involved in cholesteatoma spreading: the inferior lateral attic and the subincudal space.

For this study were used 50 temporal bones, obtained in legal conditions at autopsies, from specimens without any known middle ear pathology. Combined, lateral, anterior and superior approaches were used for the anatomical microdissections of those specimens.

The infero-lateral attic (ILA) must be regarded as a passage similar to the tympanic isthmus rather than a distinctive anatomical space. Located externally to the incus, it is limited superior by the lateral incudomalleal fold (LIF) and the external wall is represented by the lower part of the attical bony wall. The inferior wall of the ILA is made by the posterior part of the posterior malleal fold (PMF), including at that level the fold of chorda tympani; the anterior part of the PMF separates the Prussak's space to the ILA. The anterior wall of the ILA is represented by the neck of malleus and the ligamentar part of the external malleal fold. Except the anatomic opening of the ILA below isthmus tympanic posticus into mesotympanum, weak parts of its walls can individually present as additional drainage pathways into the Prussak's space or the lateral malleal space.

The anatomy and topography of the ILA correlates with the aeration and drainage pathways of the retraction pouches of the tympanic membrane, in the pathogenesis of the middle ear cholesteatoma.

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