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JUXTA-ORAL ORGAN OF CHIEVITZ

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Despite centuries-old history of Anatomy, there are still organs and structures which are insufficiently researched, and thus don't receive enough credit in textbooks and publications. Even those organs that were thoughtfully studied may still have their function unknown, and so they may be considered insignificant for publication.

By analysis of various dispersed information sources, such as literature and medical journals, to provide description of development, structure, supposed function and clinical significance of juxta-oral organ.

English and Russian literature studied and analysed. English language sources translated to Russian for further usage and analysis. Historical background provided.

Juxta-oral organ was first discovered in 1885 by Johan Henrik Chievitz. This structure came by different names, such as orbital inclusion, Chievitz organ, buccopharyngeal tract, buccotemporal organ, juxta-parotid organ, etc. At the present time official designation is (lat.) *organum juxtaorale*. This organ is a paired cord-shaped structure, 10-14mm in length and about 2 mm in diameter, usually found on medial side of mandibular angle, embedded in soft tissue. It can also be found in other mammals, such as mice and canines.

Juxta-oral organ morphogenesis data is highly contradictory, as they can refer to various periods of embryogenesis. For example, juxta-oral organ bud separation from oral cavity epithelium, according to one source occurs at day 44-46 of embryogenesis, according to another – already at 10th. Despite those inaccuracies, four stages can be distinguished. Organ starts its development as a bud on oral cavity epithelium as the first stage, than proceeds to separate from it and gets characteristic cord-shape. It is the second stage of development, designated as separation and innervation phase. On the third stage connective tissue capsule grows around the future organ, and vasculogenesis starts. Fourth stage can be described as a late development phase, and finishes its capsule, innervation and blood vessel network formation, thus completing an organ development. The whole process occurs between 5th and 28th week of embryogenesis. It was proved by experiments on mice that in case of exocrine glands development defects, formation of juxta-oral organ can be severely impaired or halted completely.

At present day, it is believed that organ provides mechanosensoric function, but precise function is still not specified and requires further research.