

Study of the vascularization of the tongue of the *Cebus apella* primate

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The vascular system works as part of the integrating mechanisms of many different tissues. Vascular patterns work as references that indicate the degree of evolutionary stability of the structures. There are sparse information concerning the lingual artery (la) of *Cebus apella* and its main ramifications. The objective of this work was to compare this vascular pattern to the ones of other primates. Fifteen heads of animals were used, which were obtained with the help of São Paulo's Zoological Park Foundation, collected strictly according to bioethical rules and the animal well-being. The method included the technique of vascular injection followed by dissection under magnifying glass (LTS 3700). The material was perfused via thoracic aorta artery, with water (40 °C), injected with colored latex (neoprene 450, Suvinil coloring), fixed with aqueous solution of formaldehyde at 10% and dissected. The analysis of the data allowed us to consider that the la originated either by trifurcation through trunk dependent of the external carotid artery (20%), or by bifurcation (80%). The la in the suprahyoid region and in the root of the tongue emitted dorsal ramifications (r) as follows: 1 r, 8 antimeres (26.67%); 2 r, 2 cases (6.67%); 3 r, 5 times (16.66%); 4 r, 3 antimeres (10%), 5 r, 2 antimeres (6.67%); in 10 antimeres it was not possible to quantify such ramifications. The number of ventral ramifications, then varied as follows: 1 r, 10 times (33.33%); 2 r, 8 antimeres (26.67%); 3 r, 2 cases (6.67%); in 10 observations they were not visualized. In this region it was registered lateral and recurring ramifications in 6.67% of the sample. Rostrally to the lateral portion of the hyoid bone, the vessel penetrated into the tongue body, subdividing itself into deep artery of the tongue (dat) and sublingual artery (sla). On the path of the sla, it is verified dorsal, ventral and recurring ramifications. The dat showed from 1 to 11 macroscopic dorsal ramifications. In the extreme segment of the tongue, on the lingual top, the vessel subdivides itself into a radial form. In 4 specimens (26.67%), the dat finished in anastomosis by inosculation among the antimeres. The study showed that similar to other animals, the *Cebus apella*'s tongue is richly vascularized. The la and its ramifications are responsible for the sanguine input of the intrinsic musculature of the tongue, lingual and sublingual mucosa and myofascial structures related to the larger and smaller horns, and body of the hyoid bone. The hierarchy of importance of this vessel compared to others of the viscerocranium reflects the functional exigency of the organ.

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