

Anatomy of the carotid artery of the encephalon of *Cebus apella*, Linnaeus, 1766

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The sanguine input of the brain of the primate *Cebus apella* is dependent of the carotids and basilar arteries. Several studies explored the anatomy of the encephalon vessels in animal series. The arteries of the base were studied in chimpanzee, rhesus monkey and in *Cebus apella*. We analyzed the morphology of the carotid artery of the encephalon (CAE) with the purpose of systematizing its origin, path and end. We used, fifteen heads coming from São Paulo's Zoological Foundation, collected according to international norms of bioethics, respecting the Brazilian legislation and ceded for research. The 30 specimens were dissected under magnifying glass (RANSOR II-20). The method included perfusion of the arterial network with heated water (40 °C), fixation in formaldehyde solution at 10%, injection of colored latex (Neoprene 450, Dupont do Brazil and Glassurit's Sulvinil Coloring) in the arterial network and preservation in Laskosvisk's solution. The CAE, observed in the 30 opportunities appear as vessels of medium caliber, of short cervical course, running through the cranium base and the carotid canal, situated in the petrosal and cavernous parts of the temporal bone. The intraosseous course of the artery is sinuous, marginal to the tympanic cavity, oriented in the caudorostral direction. During this path, little branches appear which are responsible for the sanguine supply of local structures. The artery reaches the cranium base by the lacerated foramen below the external portion of the cranial dura mater. This happens on the external lamina of the intracranial petrosal portion of the anterior temporal bone and medially to the tympanic cavity. The vessel runs inside a petrosal hiatus relatively elongated and its intraosseous course is horizontal. It is covered by dura mater, even during its path under the trigeminal ganglion. After leaving sidelong the ophthalmic branch of the trigeminal nerve, the artery moves cranially to reach the encephalon base where it subdivides itself. The study allowed us to consider that: the CAE presented a petrosal segment, a cavernous segment relatively sinuous as well as an intracranial rectilinear segment. The third artery segment that reaches the cranium base presents a lateromedial curve to, in its sequence, run horizontally on the petrosal hiatus above referred. In the intracranial course, the artery has half of its course extradural and the other half intradural.

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