ACTA PALAEONTOLOGICA POLONICA

The internal carotid artery in early eutherians

John R. Wible
Acta Palaeontologica Polonica 28 (1-2), 1983: 281-293

Although evidence from comparative anatomy and embryology shows that only one Internal carotid artery is present am ong extant eutherians, numerous early eutherians have two vascular-like grooves on the petrosal suggesting the presence of two separate internal carotids. It is argued here that the most acceptable model for the interpretation of this morphology places the single internal carotid in the lateral groove and a venous channel (inferior petrosal sinus) in the medial one. This lateral course for the internal carotid artery is not necessarily primitive for Eutheria, only widespread among early groups. The earliest known euthcrian basicrania have only a medial groove and therefore, a medial course to the internal carotid. However, based on ontogenetic research, this medial course in the earliest known eutherians was most likely not identical with the medial course in non-eutherian mammals.

Key words: internal carotid artery, basicrania, earl y eutherians, petrosal, inferior petrosal sinus.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Full text (723.6 kB)