The variability of the maxillary artery location in relation to the mandibular nerve in chinchilla (*Chinchilla laniger*)

Jacek Kuchinka, Elżbieta Nowak, Aleksander Szczurkowski, Tadeusz Kuder

Department of Comparative Anatomy, Institute of Biology,
Jan Kochanowski University in Kielce,
15 Świętokrzyska St., 25-406 Kielce, Poland

Material and methods

Investigations were performed on 25 vascular specimens of adult, either sex chinchillas. Arterial system of the head was filled via the left heart ventricle with the red acryl latex (LBS 3060) and placed in acidic formalin. After the latex coagulation heads were cut in the sagittal plane and prepared from the medial side showing the area of crossing maxillary artery with mandibular nerve.

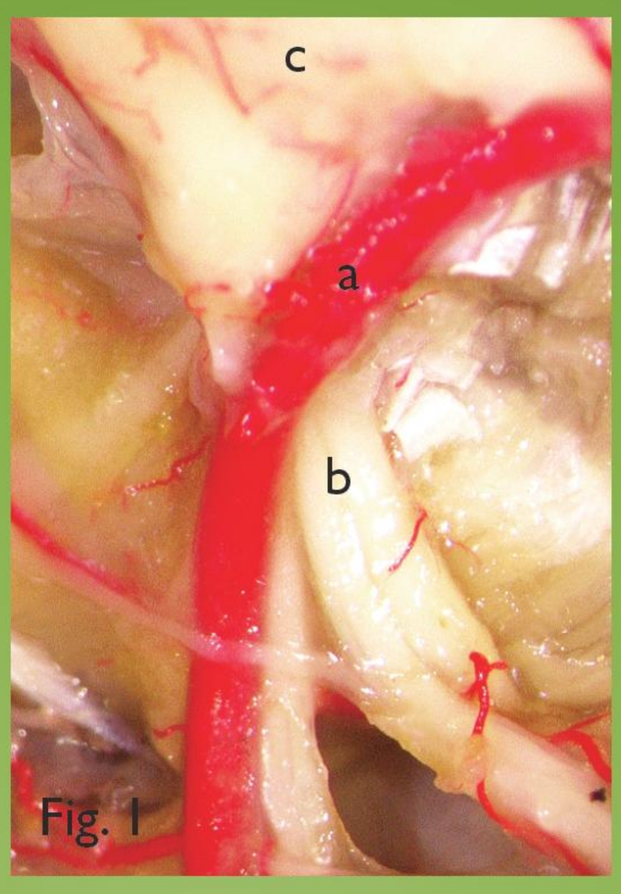

Fig. 1

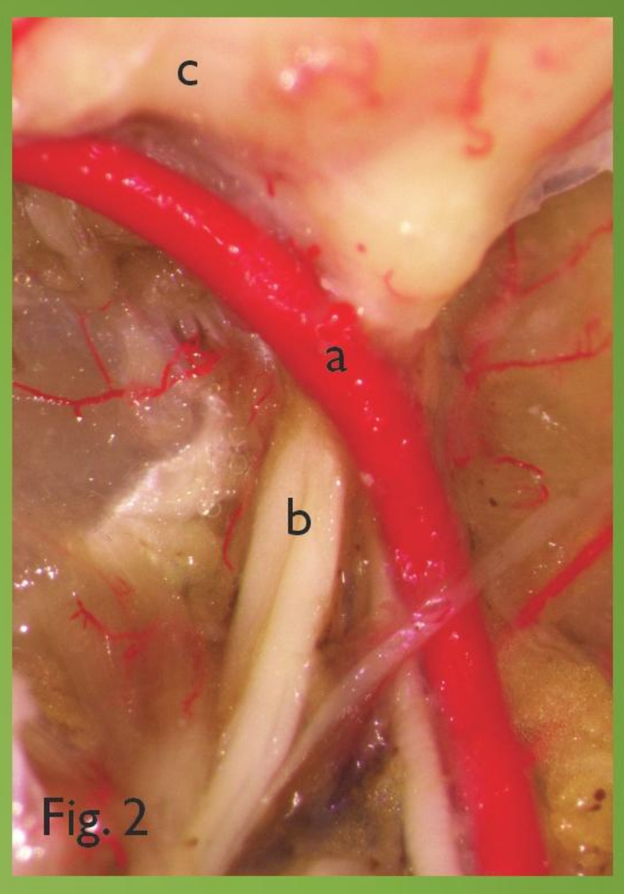

Fig. 2

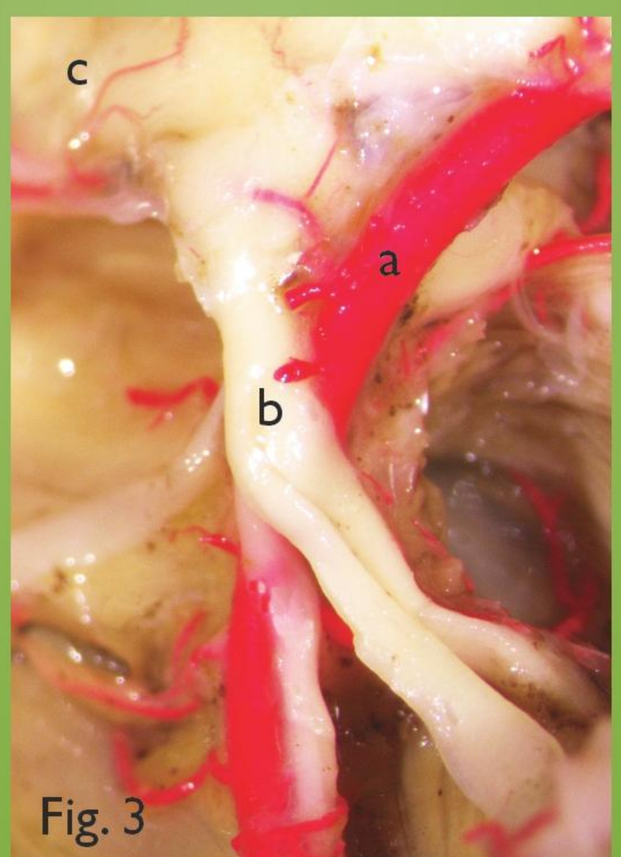

Fig. 3

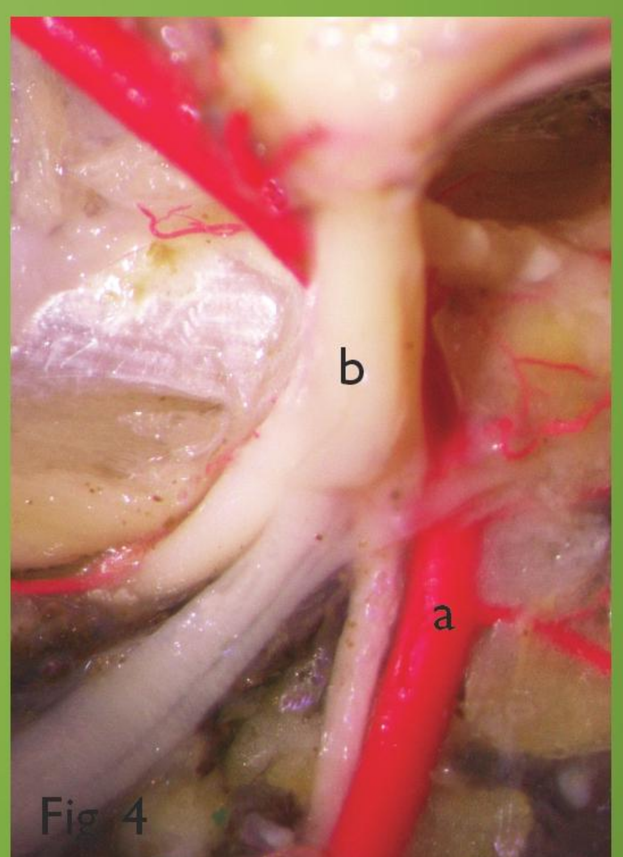

Fig. 4

Legend

Fig. 1. Medial location of the maxillary artery - left side
Fig. 2. Medial location of the maxillary artery - right side
Fig. 3. Lateral location of the maxillary artery - left side
Fig. 4. Lateral location of the maxillary artery - right side
a - maxillary artery
b - mandibular nerve
c - trigeminal nerve

Results and conclusions

Performed observations indicate the appreciable variability of the maxillary artery location related to the mandibular nerve. The maxillary artery crossed the mandibular nerve on the medial side in the left and right half of the head in 19 individuals, what is typical for most rodents. In the other 6 cases the maxillary artery crossed the mandibular nerve on the lateral side, while in the one individual on the both side of the head and in the remaining 5 individuals only on the left part of the head. This kind of variability seems to be interesting in compare to Platzer (1974) statements, which define the medial location of the maxillary artery related to mandibular nerve as a more primitive then the lateral location, in the phylogenetic aspect. Presented location variability of the maxillary artery had no effect on the otic ganglion localization, but only determined the place of meningeal branch in relation to the ganglion.

Literature:

Platzer W. (1974): Morphologie der Kreislauforgane. Handbuch der Zool. 5, 4. Walter De Gruyter, Berlin: 1-106.

XXXI Congress of Polish Anatomical Society

e-mail: jacek.kuchinka@ujk.edu.pl