## Median callosal artery



Under normal embryological development, the anterior cerebral artery (ACA) has been identified at around 41-48 days of gestation. The embryo has already developed the primitive olfactory artery (POA), which by this date already has two branches, one to the nasal fossa and one running more medially to develop into the ACA. As development continues, the MACC (also termed the superior callosal artery, median callosal artery, accessory anterior cerebral artery, medial anterior cerebral artery, or the third A2 artery) appears to arise as a small embryonic branch of the AComA. When apoptotic signals fail to involute this artery, it then continues its course, runs parallel to the pericallosal artery, and supplies blood to the corpus callosum, septal nuclei, septum pellucidum, rostral portions of the fornix, and both frontal lobes <sup>1) 2)</sup>

In 33 specimens from transcranial and endonasal perspectives, the subcallosal artery was present in 79% of the specimens as a single dominant artery arising from the posterior/posterosuperior surface of the anterior communicating artery (AcomA), along with hypothalamic arteries (55%), or as a single artery (24%). It coursed posteriorly towards the lamina terminalis region, curving superiorly to the subcallosal area. The ScA gave off many branches to provide the main blood supply to the subcallosal region. Importantly, it supplies the septal/subcallosal region bilaterally. The ScA can be found posterior, superior, or inferior to the AcomA when using a transylvian, interhemispheric, or endonasal approach, respectively. In specimens with no ScA (21%), the median callosal artery (MdCA) was the dominant artery arising from the AcomA. It followed an identical course to the ScA, providing supply to the same structures bilaterally, but its distal extension reached the body/splenium of the corpus callosum. The MdCA is a ScA variant <sup>3)</sup>.

## References

1)

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