

Rare Variations Of The Vertebral Arteries, Intervertebral Transversal Anastomosis: Cadaver And Radiological Investigation

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Purpose

There are few studies about variations of the vertebral arteries, and some variations are very rare. We want to emphasise one of the rarest entity, is intervertebral transversal anastomosis. The main aim of this study is to determine the rate of the randomly detected variations in cadaver dissections using computed tomography angiography (CTA) and to present our combined study which is performed with cadavers dissection and the computed tomography angiography of cerebral arteries.

Material and Methods

13 formalin fixed human cadaveric heads were perfused with red and blue colored silicone were dissected at XXXXX and we performed endoscopic endonasal transclival approach to the ventral brainstem. CTA examinations performed by 64-slice CTA were prospectively reviewed in 887 patients for the presence of intervertebral transversal anastomosis.

Results

We detected the intervertebral transversal anastomosis only in 1 head cadaver. We found a lot of variable known variations by CTA. The basillary artery fenestration was found in 7 (% 0.78) patients and intervertebral transversal anastomosis in 1 (% 0.11) patient but, we focused on the intervertebral transversal anastomosis.

Conclusions

We found the opportunity to discuss the difference between intervertebral transversal anastomosis and basilar fenestration and to emphasize randomly detected a rare variation of the vertebral arteries that has never been shown before in cadaveric dissections in literature.