

7th Global Neurologists Annual Meeting on

Neuro Surgery and Interventional Radiology

August 22-24, 2016 Vienna, Austria

Retrospective Analysis of Variations of Sulcus Arteria Vertebralis and Variations of Dimensions of Arteria Vertebralis at this level detected by CT Angiography Technique

Aysegul Firat¹, Erbil Nurhan² and Gocmen Rahsan³
Hacettepe University, Turkey

Sulcus arteria vertebralis is the groove that is located on first cervical vertebra (atlas) where vertebral artery passes over the posterior arch of atlas to reach the foramen magnum. An abnormal bridge between the posterior part of the superior articular process and posterolateral part of the posterior arch of the atlas is a common variation detected by radiographies of the patients. This bony bridge is called as ponticulus posticus or a variant of Kimmerle's anomaly. Its prevalence has been reported to be between 5.14-37.83%. This common variation may be a possible cause of the ischemia in posterior circulation and headache. This study aimed to determine and analyse the existence of ponticulus posticus and correlate the dimensions of the vertebral artery with its prevalence with a retrospective analysis of 600 CT angiographies (1mm sections) of Department of Radiology, University Hospital of Hacettepe. We have detected a complete ponticulus posticus in 12.10% of the patients and 27.38% of them were bilateral. Right and left sided post-sulcus arterial dimensions were found to be lesser than the pre-sulcus dimensions with the incomplete ponticulus posticus existence. Variations of the sulcus arterial vertebralis is a commonly studied variation among different nations. This study will be a preliminary analysis for the clinical problems like headache, vascular diseases and surgical interventions of atlas.

Biography

Firat was graduated from Hacettepe University Faculty of Medicine in 1999. Since then she worked as a medical doctor for ministry of health for 6 years. In 2006 she became a research assistant in Hacettepe University Faculty of Medicine, Department of Anatomy. She finished residency and specialization of Anatomy and became an Anatomist in the same faculty. Since then she is working as a researcher and lecturer of Anatomy in the Hacettepe University.

aysfirat@hacettepe.edu.tr

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