

**Material and methods:** The incidence for presence of exostosis from posterior margin of atlas vertebrae was studied in a total of 86 dried human atlas vertebrae, which were obtained from the department of anatomy, M.P. Shah Government Medical College, Jamnagar, Gujarat. The morphological variations on posterior arch like depth of groove for the vertebral artery and partial or complete ponticulus was observed.

**Results:** The incidence of impression for the vertebral artery on posterior arch of atlas vertebrae was 38.37% and impression for vertebral artery deeper than former was 33.72%. The presence of partial posterior ponticulus was in 22.1% cases whereas complete posterior ponticulus was found in 1.74% cases. The incidence of partial lateral ponticulus was 4.07%. There was no any posterolateral tunnel found in present study.

**Conclusion:** Present study reveals that the prevalence of posterior ponticulus was more as compared to lateral ponticulus. The incidence of partial posterior ponticulus was higher than complete ponticulus. The study also suggest that incidence of bilateral partial ponticulus was more than the unilateral. Knowledge of this incidence is essential for neurosurgeon and orthopaedicians in treatment of vertebrobasilar insufficiency due to compression of vertebral artery in bony ring.

#### Conflicts of interest

The authors have none to declare.

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#### Study of Brocq and Mouchet arteriovenous triangle in human hearts



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**Aims and objectives:** The study aimed to observe the topographic region of human hearts, i.e. Brocq and Mouchet arteriovenous triangle composed by the intersection of the great cardiac vein, the circumflex artery and the anterior interventricular branch of the left coronary artery.

**Material and methods:** The study was performed on thirty human hearts. Great cardiac vein, circumflex artery and anterior interventricular artery were analyzed by dissection without disturbing the vessels from adjacent adipose tissue for maintaining the anatomy in situ. They were analyzed regarding to their disposition in the triangle and the relations between them: classifying the patterns as: (i) absent, (ii) open inferiorly, (iii) open fully, (iv) closed, and (v) open superiorly.

**Results:** The presence of Brocq and Mouchet triangle was noticed in all the 30 cadaveric hearts. However, the triangle was closed in 17 hearts (56.66%); open in 13 (43.33%). It was open inferiorly and superiorly each in 5 cadaveric hearts (16.66%) each. The triangle was open completely in rest of 3 hearts (10%).

**Conclusion:** The triangle of Brocq and Mouchet is commonly used when performing an intravascular ultrasound of coronary arteries to help in identifying pericardium, myocardium and neighbouring vessels. Variations of this triangle may have implications in detecting those structures by ultrasonography.

#### Conflicts of interest

The authors have none to declare.

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#### Variations of anterior cerebral artery in human cadavers



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**Aims and objectives:** In the anterior component of circle of Willis, the anterior cerebral artery is an important terminal branch of internal carotid artery along with the anterior communicating artery. The knowledge of anatomical variations in anterior cerebral artery is more important to clinicians.

**Material and methods:** Morphology and variations of anterior cerebral arteries and the anterior communicating artery were studied in 40 formalin preserved brains. The variations of segment in relations with size course, communications and termination of anterior cerebral artery were noted under different groups like hypoplasia, aplasia, duplication and fenestrations.

**Results:** In 31.3%, i.e. (35%) variations were found. The mean diameter and length of the proximal segment of the anterior cerebral artery was 3.2 mm and 15.7 mm, anterior communicating artery was 2.4 mm and 3.3 mm and distal segment of the anterior cerebral artery was 2.5 mm and 42.1 mm respectively.

#### Conflicts of interest

The author has none to declare.

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#### Study of variations in the origin of obturator artery



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**Aims and objectives:** To study the variations in the origin of obturator artery.

**Material and methods:** The pelvis of 35 cadavers embalmed with 10% formalin were, sagittal bisected to note, in each half, the origin of obturator artery and any variations.

**Results:** Different types of variations in the origin of the obturator artery were noticed. In some cases the artery arose from the external iliac artery. In some other cases it was arising from posterior division of internal iliac artery while in some cases it was arose from any branch of the anterior division of internal iliac artery.

**Conclusion:** Obturator artery is considered as the branch arising from anterior division of internal iliac artery but it shows numerous variations in its origin. Occasionally the obturator artery is replaced by an enlarged pubic branch of the inferior epigastric artery being rarely injured during femoral hernia repairs. Sometimes, the obturator artery curves along the edge of the lacunar part of the inguinal ligament, of a hernial sac, and may be inadvertently cut during enlargement of the femoral ring in reducing femoral hernias.

#### Conflicts of interest

The authors have none to declare.

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