

the posterior wall of the stomach. During the dissection instead of a unique trunk of the LGV we found 3 small venous vessels in diameter of 2-3 mm, which ran into the portal vein. These vessels ran from the gastric and esophageal branches down to the celiac trunk and formed a plexus around the celiac trunk. We also investigated the relationship between the LGV and other veins of portal system in other 89 cases. In 50 cases the LGV had a duplicative course with the left gastric artery (LGA) and ran into the portal vein (41 cases, 82%) or into the angle of merge of splenic and inferior mesenteric vein (6 cases, 12%), or into the splenic vein (3 cases, 6%). In 39 of 89 cases (43,82%) the LGV was running separately from the LGA, crossing a common hepatic artery (23 of 89 cases, 25,84%) or a splenic artery (16 of 89 cases, 17,98%). In both of these variants the LGV ran into the portal or splenic vein.

**Conclusion:** In 1,11% of all investigated cases we haven't found the unique trunk of the left gastric vein, which takes place in forming the very serious porto-caval anastomosis during the portal hypertension. Existing of such anatomical variants can provide not only very dangerous in diagnosis and prognosis gastro-duodenal bleeding, but also may cause technical problems during the hemostasis.

## MORPHOMETRIC CHARACTERISTICS OF COMMON CAROTID ARTERIES BIFURCATION IN MEN WITH DIFFERENT SHAPE OF THE NECK

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**Introduction:** In the last decade, the anatomical structure of the bifurcation of common carotid arteries has attracted particular attention of anatomists and clinicians.

**Objective:** To identify the morphometric characteristics of the bifurcation of common carotid arteries in men with different forms of the neck.

**Techniques:** 90 male cadavers (36-60 years) were studied. The lengths of the neck, its frontal and sagittal dimensions of its base were measured. Classification of forms of the neck by A. Sozonov-Yaroshevich: long and narrow neck, index  $\leq 67,2$ ; neck of average length and average diameter, index = 67,3-79,5; short and wide neck, index  $\geq 79,6$ . Morphometry was performed at bifurcation of the common carotid artery (CCA) on the right and left (length, diameter, angle of bifurcation, the lateral angles with the external (ECA) and internal (ICA) carotid arteries).

**Results:** Cadaveric material was distributed into 3 groups: men with long, narrow neck,  $n = 27$ , men with a neck of medium length and average diameter,  $n = 38$ ; men with short and wide neck,  $n = 25$ . The length of the bifurcation of the OCA in men with long, narrow neck was the highest in comparison with the other groups studied, and was right on average  $23,2 \pm 5,4$  mm, and left to  $21,4 \pm 5,1$  mm, while the diameter was the smallest -  $9,3 \pm 2,2$  mm on the right and  $9,2 \pm 2,3$  mm on the left. The angle of bifurcation of men in this group was also lower and averaged  $6,6 \pm 0,6^\circ$  to the right and  $7,2 \pm 0,8^\circ$  to the left. The average value of the right side corner of the NSA was  $178 \pm 1,2^\circ$ , on the left, it was  $176 \pm 0,7^\circ$ . The value of the lateral angle of the ICA was equal to an average of  $174 \pm 0,9^\circ$  right and  $175 \pm 0,5^\circ$  to the left. A group of people with short and wide neck, the average length of the bifurcation of the CCA was minimal, with both its greatest diameter. Its length is right on average  $14,9 \pm 5,3$  mm, and left to  $14,6 \pm 5,0$  mm. The diameters were equal to the values of  $22,2 \pm 6,4$  mm and  $23,5 \pm 6,9$  mm on the right and left, respectively. The apical angle in this group of men studied was  $27,0 \pm 0,9^\circ$  to the right and  $29,3 \pm 0,8^\circ$  to the left. Angle with the NSA was on average  $167 \pm 1,5^\circ$ , and the left -  $164 \pm 2,6^\circ$ . Side angle with the right internal carotid artery was  $158 \pm 2,4^\circ$ , the left was equal to the value of  $160 \pm 1,4^\circ$ . On the neck of

average length and average diameter values of the parameters studied the bifurcation of the OCA, both right and left were located between the similar values of the two above groups. Length of the bifurcation of the right CCA average was equal to  $18,5 \pm 5,2$  mm, and left to  $19,8 \pm 5,3$  mm. The average value of the diameter of the bifurcation of the right CCA was  $16,3 \pm 3,9$  mm and the left -  $16,9 \pm 4,9$  mm. The angle of the branch on the right CCA was equal to  $17,2 \pm 0,6$  °, left it was  $19,6 \pm 1,1$  °. Side right angle with the NSA was equal to  $176 \pm 1,7$  °, the left is the value was  $170 \pm 1,5$  °. Side angle with the internal carotid artery was equal to  $161 \pm 0,9$  ° right and  $161 \pm 1,9$  ° to the left.

**Conclusions:** Our studies have revealed clear differences of morphometric characteristics of the bifurcation of the OCA in men with different forms of the neck.

**Key words:** common carotid artery, external carotid artery, internal carotid artery bifurcation of the common carotid artery, morphometry, the shape of the neck.

## QUALITATIVE ANALYSIS OF NEURONS IN THE HUMAN PERIAQUEDUCTAL GRAY

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**Introduction:** The periaqueductal gray matter is classically divided into four major nuclei: dorsal, medial, lateral and ventral, according to their cytoarchitectural feature. While some studies indicate that these nuclei are composed of similar cell types, there is some evidence that each of these nuclei is arranged in discrete groups of cells on the basis of their neuronal morphology and their afferent and efferent connection.

**Materials and Methods:** The neurons were labelled by Golgi staining from five human midbrains, obtained from medico-legal forensic autopsies of adult human bodies and free of significant brain pathology. Two-dimensional digital images of each periaqueductal gray neuron were recorded by a digital camera connected to a light microscope.

**Results:** The neurons of the periaqueductal gray were qualitatively analysed, and these cells were classified into two main classes. Taking into account the shape of the cell body, numbers of the primary dendrites, shape of the dendritic tree and their position within the periaqueductal gray, three subclasses of the large neurons and two subclasses of the small neurons have been recognized.

**Conclusion:** The present study supports the hypothesis that the periaqueductal gray matter could be subdivided into discrete cell groups according to their neuronal morphology.

**Key words:** periaqueductal grey matter, neuron, human, anatomy, histology.

## HORMONE REPLACEMENT THERAPY: THE GOOD, THE BAD AND THE UGLY

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The incidence of hypertension and cardiovascular diseases is lower in women than age-matched men, before women go through menopause.