
type IV equally in control group that was detected as immunofluorescence with moderate intensity (0.526±0.02 cond. un. lum.). Subendothelial layer connective tissue accumulated uniformly mainly collagen type III (0.498±0.01 cond.un. lum.) and collagen type I was detected in luminescence with intensity with 0,53±0,01 cond. un. lum. The content of type IV collagen decreased in thickened basement membrane in the experimental group compared with the control one. Its optical density was 0,497±0,02 cond. un. lum. Collagen type III was determined in basal membrane structure, where it is known must be collagen type IV – universally recognized basement membrane component of blood vessels. Presence of interstitial collagen type III demonstrated sclerotic changes. The optical density of collagen type I in the middle and outer membranes increased in the group with hypoxia compared with the control one, where its significance was 0,66±0,02 cond. un. lum.

Conclusions. Appearance of sclerotic changes in the basal membrane of the PA observed in the group with hypoxia as a result of interstitial collagen type III presence against deficiency of IV type collagen. Sclerotic processes is also observed in the media and adventitia as a result of interstitial collagen I production activation or faster maturation of collagen I type from collagen III due to hypoxia influence.

Shakiryanova A.V., Shcholok T.S, Bobrov A.E., Lutenko M.A.
TO THE QUESTION ABOUT MORPHOLOGY OF HUMAN MUSCULOCUTANEOUS NERVE
Kharkiv National Medical University, Kharkiv, Ukraine,
Department of human anatomy

Scientific supervisor: ass. prof. Izmailova L.V.

Introduction. Learning structure of musculocutaneous nerve represents big interest in both theoretical and practical sense, because mentioned nerve, according to literary facts, is characterized with numerous variations connected with its beginning, progress, ramification and its terminal branches.

Aim. To explore possible variants of the structure of musculocutaneous nerve.

Materials and methods. We explored this nerve located on limbs of 15 newborns. Our material shows that in all the cases musculocutaneous nerve is formed from lateral beam of brachial plexus.

Results. Further nerve in 10 cases moves through muscle at the middle of its length and follows between the back surface of the biceps muscle and the front surface of the coracobrachialis muscle. In two cases on our preparations nerve didn’t break through coracobrachialis muscle, but moved on its medial surface till the border of upper and middle third of shoulder and further it was situated between biceps and shoulder muscles. On our material in two cases newborns’ musculocutaneous nerve throughout upper third of shoulder was situated at the same connective tissue vagina. On the other extent, as in the other cases, both nerves were separated. From ulnar fovea it gets on antero-lateral surface of the forearm and is called lateral cutaneous nerve of the forearm.

At the forearm the nerve has different length. In one case lateral cutaneous nerve of forearm, after leaving ulnar fovea, immediately broke up into many branches in the skin of the anterior-lateral surface of the upper third of the forearm. On its way nerve gives a number of branches. On the shoulder muscular branches depart from it predominantly to coracobrachialis muscle, biceps and shoulder muscles. In 5 cases, this nerve gave a barrel to the biceps muscle which while coming to the muscle at the level of the upper third of the
shoulder was divided into a number of branches. In two cases, this muscle was innervated by different branches of the nerve.

Talking about separate heads of biceps muscle of arm, its short head got 1-3 branches, and its long head 1-2 branches. The one, which goes to long head of the biceps muscle, on the level of upper third of shoulder went through the thick of this muscle, and gave three branches to the last one and on the level of middle of length of biceps muscle went out on its posterior surface. On the level of middle third of shoulder this branch connected with the common trunk of musculocutaneous nerve. Lateral cutaneous nerve of forearm in all cases sends branches to skin of anterior-lateral forearm surface. In three cases cutaneous nerves reached the level of radiocarpal articulation, in two - region of thenar, and in one - dorsal surface of the nail phalanx of the first finger. On our preparations, we observed connections of musculocutaneous nerve with a median nerve in the shoulder area and the terminal branches of the radial nerve - in the region of forearm. On the shoulder these connections go from the musculocutaneous nerve to the median nerve: in three cases at the level of the upper third of the shoulder, in one - on the level of its lower third and in one case - in the antecubital fossa.

Conclusion. In 4 cases we observed discharge of connecting branches from lateral cutaneous nerve to radial nerve. On the structure of preparations prevails cord of nerves in upper third of shoulder in shape of network in that medium-caliber loops prevail. In middle and lower third of shoulder nerve often looks like network that consists of large caliber loops.

Shcholok T., Kolisnik I.

INDIVIDUAL DIFFERENCES IN STRUCTURE OF HUMAN’S CELIAC TRUNK

Kharkiv National Medical University, Kharkiv, Ukraine,
Department of human anatomy

Materials and methods. The individual differences of anatomic structure of celiac trunk were researched by us on 100 bodies of people of both sexes from 20 to 83 years old with a method of injection into vessels with radiography.

Results. The researches have shown that the level of ramification of celiac trunk from aorta in different people is varied. So, the level of celiac trunk’s appearance in people with ectomorphic body shape ranges from a intervertebral cartilage between XII thoracic and I lumbar vertebrae to lower third of body of I lumbar vertebrae. Level of ramification of celiac trunk in people with endomorphic body shape is located within lower third of XI thoracic vertebra to level of intervertebral cartilage between XII thoracic and I lumbar vertebrae; level of ramification of celiac trunk in people with mesomorphic body shape matches with body of XII thoracic vertebra (from its upper end till lower end).

The corner of ramification of celiac trunk from aorta can be sharp, straight and blunt. Celiac trunk was completely absent in 3 preparations of 100 and his branches retreated from abdominal aorta by themselves. Diameter of celiac trunk is different in people of different age and body complection. Length of celiac trunk varies from 11 to 54mm; in people with endomorphic body complection it is 11-42mm, ectomorphic – 15-54, mesomorphic – 15-20mm. Dependence between diameter of celiac trunk and it’s length isn’t identified. The