

***ИСТОЧНИКИ ФОРМИРОВАНИЯ И ВНЕШНЕЕ СТРОЕНИЕ СЕЛЕЗЕНОЧНОГО
СПЛЕТЕНИЯ***

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SOURCES OF FORMATION AND EXTERNAL STRUCTURE OF SPLENIC PLEXUS

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Introduction. Practical and theoretical medicine recently interested in the spleen, which features diverse and important for the body. The spleen is important for the normal functioning of immunobiological status of the organism performs hemolytic, haemostatic, hemodynamic, protective, regulative, metabolic functions, in connection with the escalated problem saving operations on this body.

Peculiarities of structure parenchymal organs like the spleen of the main blood supply often cause traumatic damage of organ, occurring at present, spontaneous rupture with various underlying pathologies. In connection with the replacement of splenectomy for partial splenectomy in recent years has expanded operational intervention in the spleen.

The technique to improve operations in spleen surgeon must know the structure of "vascular feet", the structure of the neurovascular unit spleen intraorganic bloodstream in the zonal and segmental aspect that will reduce the incidence of forced splenectomy.

This study is part of a comprehensive research theme of the Department of Human Anatomy Kharkiv National Medical University " Morphological characteristics of the endocrine system , the peripheral nervous system under normal conditions and under the influence of certain factors ."

Objective: to examine the structural and topographic features of the sources of innervation of the spleen.

Object and Methods: Sources of formation and external structure of splenic plexus studied by makromikroskopic preparation on the 30 complex organs taken from the corpses of adults using anatomical dissection by V.P. Vorobyov, R.D. Sinelnikov.

Results and discussion. In the studied preparations the splenic plexus is narrow loop wale network consisting of thin, are difficult to separate from the artery trunks. Plexus trunks have a close relationship with hepatic plexus, which combined a common origin with abdominal plexus.

Splenic plexus in the studied specimens formed from nerve trunks that originate from nodes abdominal plexus. Abdominal nodes were kind of elongated structures. They are located on the right and left of the celiac trunk and had more venous form.

Most preparations of nerve trunks (3 - 8) departed from the left venous junction and then went on the left semicircular ventral trunk. In the place of departure of the splenic artery from the abdominal nerve trunk branches separated from the left ganglion of abdominae plexus and head down and left, criss-crossing the splenic artery. Especially difficult plexus was determined on the wall in the area of its location behind the pancreas. Nerve trunks are closely related to the vessel wall.

One of the preparations was able to trace the phrenic nerve branches involved in the formation of splenic plexus. The four specimens observed discharge 3 to 5 nerve trunks of the superior mesenteric ganglion involved in the formation of splenic plexus.

In all studied specimens splenic plexus formed from nerve trunks accompanying the splenic artery, while the majority of specimens (20 of 30) were 16 - 30 in the final - 31 - 45. In the course of the splenic vein was determined by a small number of nerve trunks. Exploring the topography of the splenic nerve plexus in region of pancreas, we have to better consideration plexus partially removed tissue of the gland. Nerve trunks were located both between the splenic artery and vein, and the "free" from them, but mostly along the artery. It should be noted that the superficial relative to the anterior wall of the artery located larger trunks thinner - deeper directly into the artery adventitia. The more pronounced difference in diameter nerve trunks, so clearly there is a "double layer" of splenic plexus.

Most preparations tortuosity observed in the location of the splenic artery. When severe twisting form artery nerve trunks located on the concave edge of the vessel, while maintaining a short cut to the organ. It should indicate that the elderly and senile age tortuosity in the outer structure of the arteries increases, which is reflected in the topography of nerves.

Splenic plexus nerve trunks were different in quantity and topography. We can distinguish the following groups of nerve roots near vessels: superior, inferior, anterior and posterior - depending on the location relative to the splenic artery. The number of nerves in the initial section of the splenic artery ranges from 16 to 50 in the newborn age - from 16 to 39, in middle - between 20 and 50, in old age - from 24 to 46 and old - from 18 to 50. Nerve trunks along the vessels are not located strictly on one side, they passed from the surface to the front, from the back to the lower. This is clearly seen in the series histotopographic cuts carried out at different levels of the splenic artery: initial and final division and level of zonal and segmental arteries. Some preparations of splenic plexus was formed 7 - 10 nerve trunks. They are grouped only on opposite surfaces of the arteries or the superior and inferior, or on the anterior and posterior. In all studied specimens

between plexus trunks parts of the observed relationships. These relationships were most numerous in the distal plexus. In some preparations connecting branches had a diameter of 0.5 to 1.0 mm, the other - from 0.2 to 0.4 mm.

In the initial section of splenic plexus and at spleen the gate of, along the nerve trunks nodular met gnarled thickenings triangular, oval, stellate, polygonal shapes. These thickenings approached from 2 to 6 nerve trunks. Number of nodular thickenings ranged from 2 to 5 - 6, the size of their varied from 1x1 to 2x2 mm. They were located both on the posterior and on the anterior surface of the artery. L.A. Ternovaya (1973) and other researchers have found in this thickenings multipolar nerve cells.

Conclusions: Depending on the nature of the branching splenic plexus nerve trunks, we include icrates from the literature, identified placer and concentrated extreme forms of this plexus. In placer form splenic plexus consisted of a large number (45) of the nerve trunks, and they were located in the anterior and posterior semicircle of arteries and formed a dense network of connections. At the gate of the spleen nerve trunks were divided spray. In this form was determined by a significant number nerve trunks near vessels, traveling along the branches of the splenic artery and penetrating into the pancreas. In addition, from splenic plexus the nerve trunks bound on the short gastric and gastro- omental arteries to the wall of the stomach. Some specimens were observed nerve trunks, which "independently" reaches the spleen, unaccompanied arterial branches.

In concentrated form in the plexus, there were significantly fewer nerve trunks. Nerve connections were less pronounced compared to the loose form of splenic plexus. In this form the splenic artery had a small number of branches that are sent to the pancreas and the stomach. For the mentioned branches to the pancreas and stomach followed nerve trunks of splenic plexus. However, their number was significantly less than in placer form.

We found some correlation between the nature of the branching splenic plexus and shape gates of organ. In placer shape the form of gates often had broad, elongated shape along the spleen. In concentrated form gates were narrow and short.