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# VARICOSE VEINS OF THE ESOPHAGUS AND STOMACH - AS A SOURCE OF BLEEDING IN PATIENTS WITH CIRRHOSIS OF THE LIVER

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**Abstract:** With cirrhosis of the liver, URVPIZh is detected in 50-70% of patients (Cales R., Pascal J.P., 1988). According to S. Sherlock, J. Dooley (1999), this complication develops in 60% of patients with decompensated and 30% compensated cirrhosis of the liver. More detailed data is provided by A. Zaman etal. (1999) - 68% of patients with liver cirrhosis had esophageal varicose veins, and 15% had gastric varicose veins. O.G. Kotenko (1999) reports that the predominance of gastric varicose veins was detected in 57.10% of patients with decompensated liver cirrhosis, while in patients with compensated liver cirrhosis, isolated esophageal varicose veins predominated.

**Key words:** diseases, fibrosis, nodular, etiological, vascular system.

## Introduction

Sh.H. Khashimov (2000), studying the severity of varicose veins in patients admitted to the hospital with esophageal-gastric bleeding, found that with the deterioration of the functional state of the liver, the diameter and length of varicose veins of the esophagus decreased. Thus, 22.2% of patients with functional class "A" had total dilatation of the veins of the esophagus, 17.9% had class "B",  and only 13.3% had class "C". This is consistent with the data of K.I. Bulanova et al. (1995), who calculated 90 patients with liver cirrhosis, that in class A the portal pressure was 435.1 mm water column, B - 335.7 mm water column, C - 283.7 mm water column. Research by K. Ueno et al. (1996) also showed that in patients with large varices, the average pressure in the esophageal veins is higher than in patients with small nodes.

Research by McCormack T. et al. (1983) found that an increase in pressure in varicose vessels leads to a progressive increase in the size of varicose nodes. Moreover, according to J.N. Plevris et al. (1995), J. Vorobioff et al. (1996) this process can develop only when the intersystem venous gradient exceeds more than 10-12 mm Hg. Art.

L. pagliaroetal. (2001), each year of observation of a group of patients with liver cirrhosis, increases by 8% the subgroup of patients in whom varicose veins are detected.

P. Cales (1995) provides data that varicose veins form in 5-15% of patients with liver cirrhosis who previously did not have them. The emerging varicose veins of the esophagus and stomach tend to increase in 4-20% of patients.

The opposite trend – the disappearance of varicose veins in patients with alcoholic cirrhosis of the liver – was reported by J. Vorobioff et al. (1996) in cases of cessation of alcohol consumption.

As F.F. points out. Sachs et al. (1987), the concentration of the venous system of the esophagus predominantly in the submucosa is characteristic exclusively of humans.

Throughout the entire esophagus, the submucosal venous plexus is expressed unevenly, which allowed F.P. Markizova (1958, 1959) distinguishes the upper and lower plexuses, which anastomose with each other through longitudinal veins. The veins of the lower esophageal plexus within the abdominal part of the esophagus anastomose with the submucosal veins of the stomach.

**Methodology**. The venous system of the esophageal-gastric junction is characterized by the presence of RCA, which is formed in the submucosa within the diaphragmatic and cardiac narrowings of the esophagus. it is of great importance in unloading the portal system during cirrhosis (Piksin I.N., 199Z; Skobelkin O.K. et al., 1987).

According to F.P. Markizova (1959) in the wall of the cardia and adjacent parts of the esophagus and stomach there are several venous networks: subepithelial in the mucous membrane, in the submucosa, intramuscular and adventitial.

Baibekov et al. (1995) conducted a stereomorphometric analysis of vascular formations of the venous type in various parts of the esophagus, which showed the following ratio of the number of vessels in the venous system of the esophagus. the relative ratio of the number of vessels in the adventitia, muscular, submucous membranes at three levels of examination of the esophagus, according to these authors, was: upper third -1: 1.4:2.6; middle third - 1 : 1.8 : 2.7; lower third - 1 : 2.5 : 6.1.

The relative poverty of vascular supply of arterial and venous types was revealed. The venous network of the lower third of the esophagus is more pronounced than in the two upper sections and is localized mainly in the sub- mucous membrane. The zone of the cardioesophageal junction is characterized by a large number of small vessels of the venous type directly under the elite lining of the esophagus.

According to a number of authors (Korshunov I.B., 1988; Merdzhanov A., 1990), venous outflow from the vessels of the cardiac sphincter located in the mucous membrane occurs towards the stomach and veins of the posterior mediastinum. In the muscular layer of the cardiac sphincter zone, the venous networks are represented by a large number of thin stems with rare anastomoses. In the outer (longitudinal) layer they have a longitudinal orientation. In the internal (circular) one, transverse stems predominate. The venous vessels of the muscular lining of the abdominal part of the esophagus are directed mainly to the subserosal venous plexus, less often to the submucosal plexus, and, as an exception, directly to the paraesophageal veins. On the posterior surface of the abdominal part of the esophagus, the external veins are represented by one or two longitudinal vessels that extend to the diaphragm or penetrate through the diaphragmatic opening into the posterior mediastinum. In addition to these large longitudinal veins, there are a number of smaller branches with transverse and oblique directions. Thus, on the posterior surface of the abdominal part of the esophagus, a large looped venous plexus is formed, which anastomoses with the veins of the posterior mediastinum and carries blood either to the extrapaired or semi-unpaired veins, or to the venous system of the stomach and further to the portal system.

**Conclusions** Finally, a small part of the venous vessels, mainly from the abdominal part of the esophagus, is directed into the thickness of the diaphragm to its venous plexuses. The left inferior phrenic vein, into which the main vein flows part of the small veins of the diaphragm, goes from left to right past the esophageal opening, bending around it in front, and flows into the inferior vena cava (Skobelkin O.K., 1987), which Rio-BrancoP. et al. (1912) called "ramen anastomotique oesophagi", emphasizing its connection with the veins of the esophagus. According to F.P. Markizov (1959), the border between the lower submucosal venous plexus of the esophagus and the submucosal plexus of the stomach does not coincide with the anatomical border between these organs and lies slightly higher. Here the diameter of the venous trunks decreases. The vessels of the smallest diameter are located 2-3 cm above the dentate line.

From the lower submucosal venous plexus of the esophagus, blood flows through 3-5 anastomoses into the semi-zygos and azygos veins. On the outer surface of the thoracic part of the esophagus there are anastomoses, i.e. numerous thin stems from the superficial layers of the muscularis and vessels of other organs, crossing the esophagus in various directions, form the peri-esophageal venous plexus. According to Kolesnikov L.L. (1979), immediately below the diaphragmatic narrowing of the esophagus, the veins again increase in diameter, merge with each other in the form of bundles, and at the level of the anatomical cardia form a continuous ring-shaped layer of veins. Through the branches of the left gastric and splenic vein, venous blood from the abdominal part of the esophagus flows into the portal system.

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