

## Status of arterial hepatic flow in patients with acute duodenal ulcer.

Cobileanschii Eugeniu<sup>1\*</sup>, Cobileanscaia Liubov<sup>2</sup>

<sup>1</sup>Department of geriatrics and Occupational Medicine, SUMPh *Nicolae Testemitanu*, Chisinau, Republic of Moldova.

<sup>2</sup>Polyclinic of the State Chancellery, Chisinau, Republic of Moldova.

**Background.** Disorder of the hepatic arterial circuit is particularly characteristic for complicated evolutionary forms of ulcer. There has been a reduction in the elasticity and tone of the arteries, an acceleration of hemodynamics in the large caliber arterial networks of the liver and a decrease in the filling of small and medium caliber arteries.

**Material and method.** The study included 46 patients with acute UD - 32 men, 14 women; the average age is  $39 \pm 0.21$  years. The hemodynamic indices were studied by means of color Doppler that allows us to direct the beam to the desired point of the visualized vessel and to calculate the flow rate in the area of the interest. -amplitude in the hepatic artery.

**Result.** Normally, the linear velocity of blood flow in the hepatic artery is  $59 \pm 15$  cm / s, diastolic -  $21 \pm 5$  cm / s, the volume of the velocity of blood flow -  $269 \pm 115$  ml / min, the resistance index (IR) -  $0.64 \pm 0.02$ , pulsation index (IP) -  $1.25 \pm 0.16$ . The linear velocity of the blood flow ranged from  $76.8 \pm 0.8$  cm / s to  $85.5 \pm 0.5$  cm / s. The volume rate of portal blood flow in duodenal ulcer was  $990 \pm 69$  ml / min. In the diagnosis of duodenal ulcer, the most significant specificity and sensitivity had a diastolic speed of blood flow, the index of resistance of the hepatic artery. The peripheral resistance index (IR) and the pulsation index (IP) in the hepatic artery were 25% and 30% higher, respectively, than these indices in the spleen vein.

**Conclusions.** 1. Acceleration of blood flow in the hepatic artery (HA) is the informative hemodynamic parameter that invoke the secondary process of ulceration and ulcer cicatrization.

2. The most pronounced changes in hepatic blood flow occurred in severe duodenal ulcer, when against the background of stagnant blood flow in the portal system, an increase in arterial vascularization was established.

**Keywords:** hepatic artery, linear velocity of blood flow, resistance index, pulsation index.