

## IMPROVEMENT OF SCORING INTERPRETATION IN LIVER CIRRHOSIS ASSESSMENT BY DUPLEX ULTRASOUND

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Early diagnosis and appropriate management of chronic liver diseases can certainly improve the prognosis and life expectancy of patients. Liver cirrhosis is the final stage of chronic liver diseases and usually is complicated by portal hypertension. Detection of portal hypertension using invasive methods is not easy due to the patients dire state and complex, time-consuming, costly processes. The need to identify non-invasive methods for portal hypertension assessment is recognized in numerous studies as a complicated problem.

In [1-3] a scoring system and its interpretation for assessment of portal hemodynamics disorders severity in liver cirrhosis was proposed. The scoring is calculated based on five non-invasive measurements, obtained by Doppler ultrasound imaging: spleen area, congestion index, splenoportal index, portal vascular index, portal hypertension index. The scoring interpretation allows classification of portal hemodynamics disorders in liver cirrhosis as follows: low severity, middle severity and high severity.

Further use in actual practice and research based on historical data have confirmed the effectiveness and reliability of the proposed method, especially in the analysis of the patient state dynamics. However, for some of the “frontier” states like “Low to Middle” and “Middle to High” the accuracy of the proposed interpretation was lower.

To enhance the accuracy of the scoring system there was proposed the further segmentation of the domain of possible scoring values. In this paper we present the result, which allows to obtain assessment of portal hemodynamics disorders severity in liver cirrhosis based on the improved scoring interpretation.

Improved scoring interpretation for portal hemodynamics disorders severity in liver cirrhosis  
assessment by duplex ultrasound

Total points	Degree of portal hemodynamics disorders severity
9-14	Low
15-16	Low to Middle
17-18	Middle
19-22	Middle to High
23-30	High

- [1] C. Țâmbală, V. Țurcanu, V.T. Dumbravă, et al. *Portal hemodinamics depending on the severity of hepatic cirrhosis*. Public health, economics and management in medicine **4(61)** (2015) 82-85.
- [2] C. Țâmbală. *Dopplerographic haemodynamic predictive parameters for portal hypertension associated with hepatic cirrhosis*. Curierul medical **58(4)** (2015) 20-24.
- [3] C. Tambala, Iu. Secrieru. *Portal hemodynamics disorders severity in liver cirrhosis assessment by duplex ultrasound*. Curierul medical **59 (1)** (2016) 37-40.