

# THE PERFORMANCE OF NON-INVASIVE SERUM TESTS IN PREDICTING CLINICALLY SIGNIFICANT PORTAL HYPERTENSION AND POSTHEPATECTOMY LIVER FAILURE IN PATIENTS WITH CIRRHOSIS COMPLICATED WITH HEPATOCELLULAR CARCINOMA

I. Nenu<sup>1,2</sup>, I. Minciuna<sup>1</sup>, C. Crisan<sup>2</sup>, C. Radu<sup>1,2</sup>, E. Mois<sup>1,2</sup>, F. Graur<sup>1,2</sup>, N. Al-Hadjjar<sup>1,2</sup>, M. Platon-Lupsor<sup>1,2</sup>, R. Badea<sup>1,2</sup>, Z. Sparchez<sup>1,2</sup>, M. Tantau<sup>1,2</sup>, F.G. Adriana<sup>2</sup>, H. Stefanescu<sup>1</sup> and B. Procopet<sup>1,2</sup>

<sup>1</sup> Regional Institute of Gastroenterology and Hepatology "Prof. Dr. O. Fodor", Cluj-Napoca, Romania

<sup>2</sup> University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj-Napoca, Romania



## INTRODUCTION

Hepatic resection is a curative therapeutic option of hepatocellular carcinoma (HCC), but proper patient selection (based on tumor size and the presence of portal hypertension - PHT) is essential for prognosis (1).

## AIM

The aim of the study was to evaluate whether serum liver tests may identify the patients with clinically significant portal hypertension (CSPH), and thus at risk to develop post-hepatectomy liver failure (PHLF).

Their performances were compared with liver stiffness measurement (LSM).

## METHOD

111 patients with compensated cirrhosis and HCC referred to hepatic resection between 2015 and 2020 in the Regional Institute of Gastroenterology and Hepatology Cluj-Napoca were included.

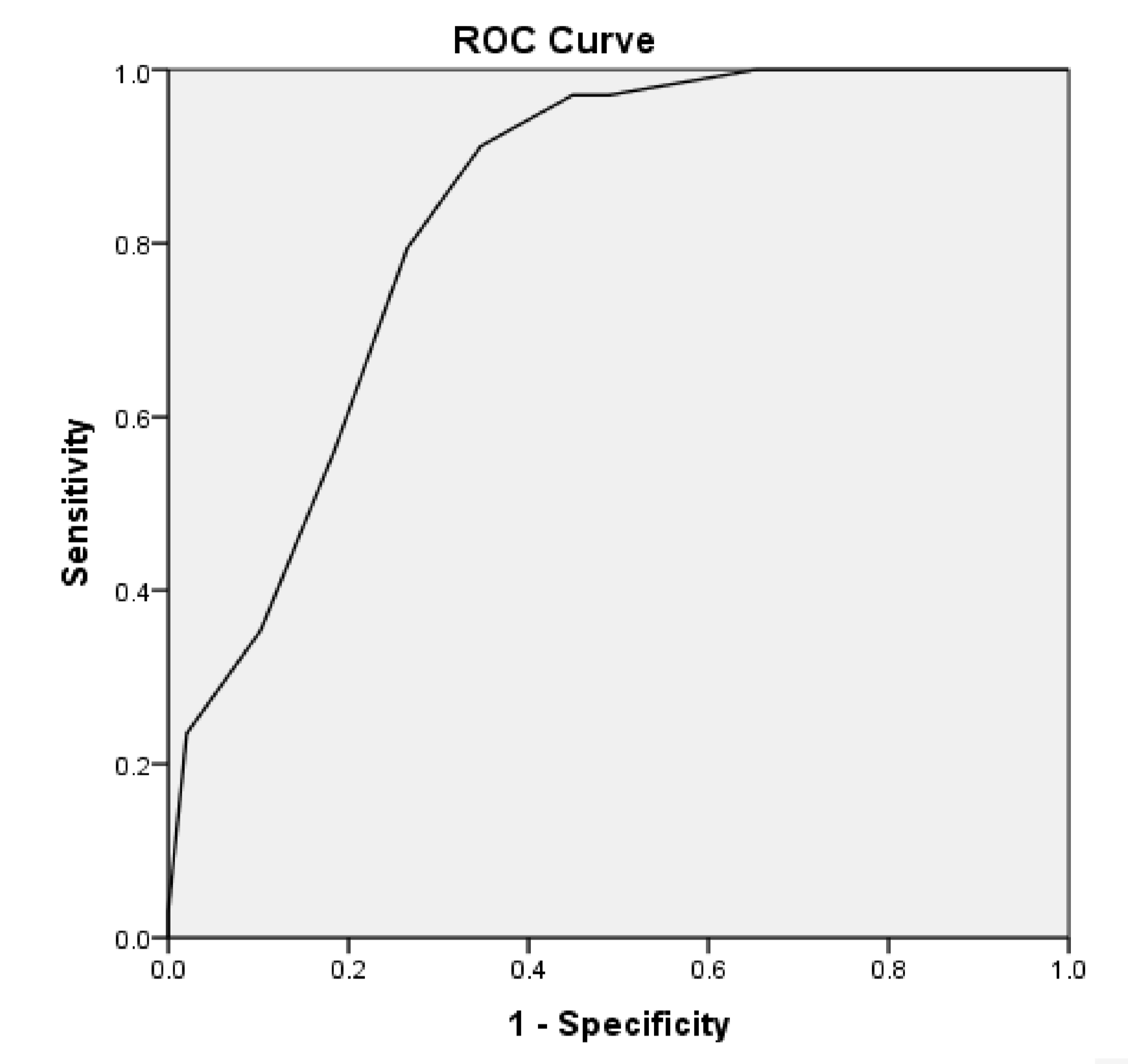
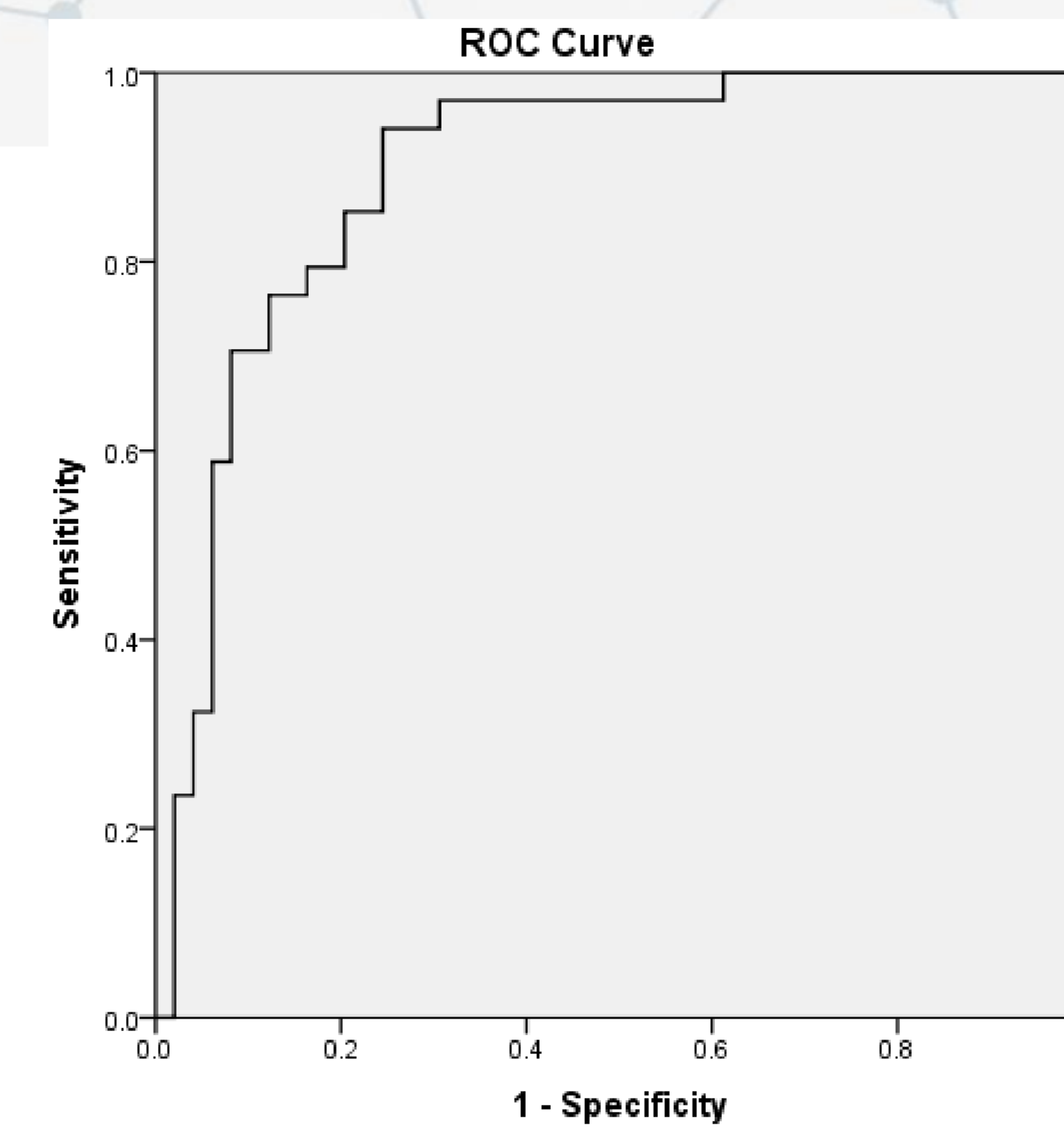
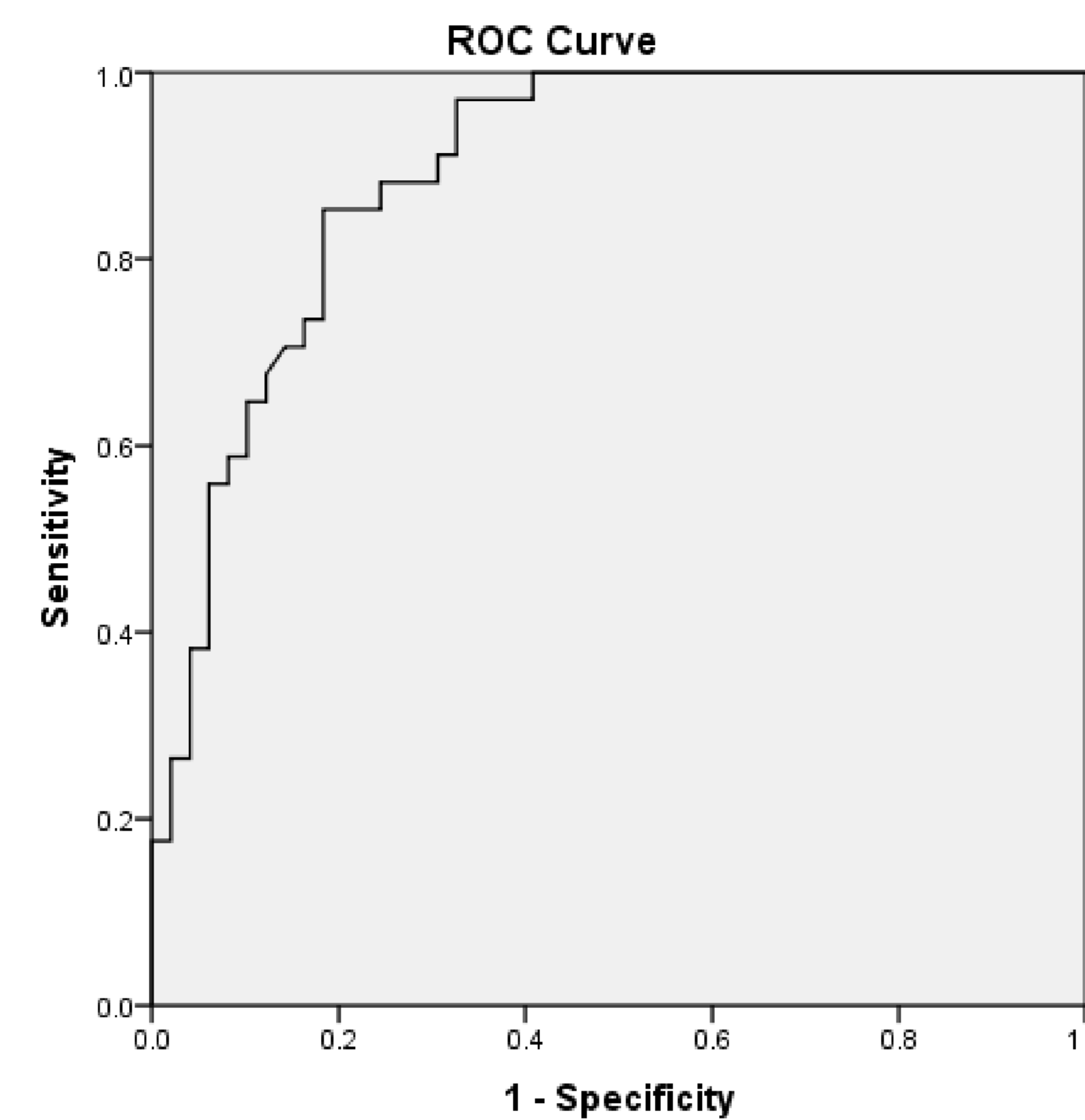
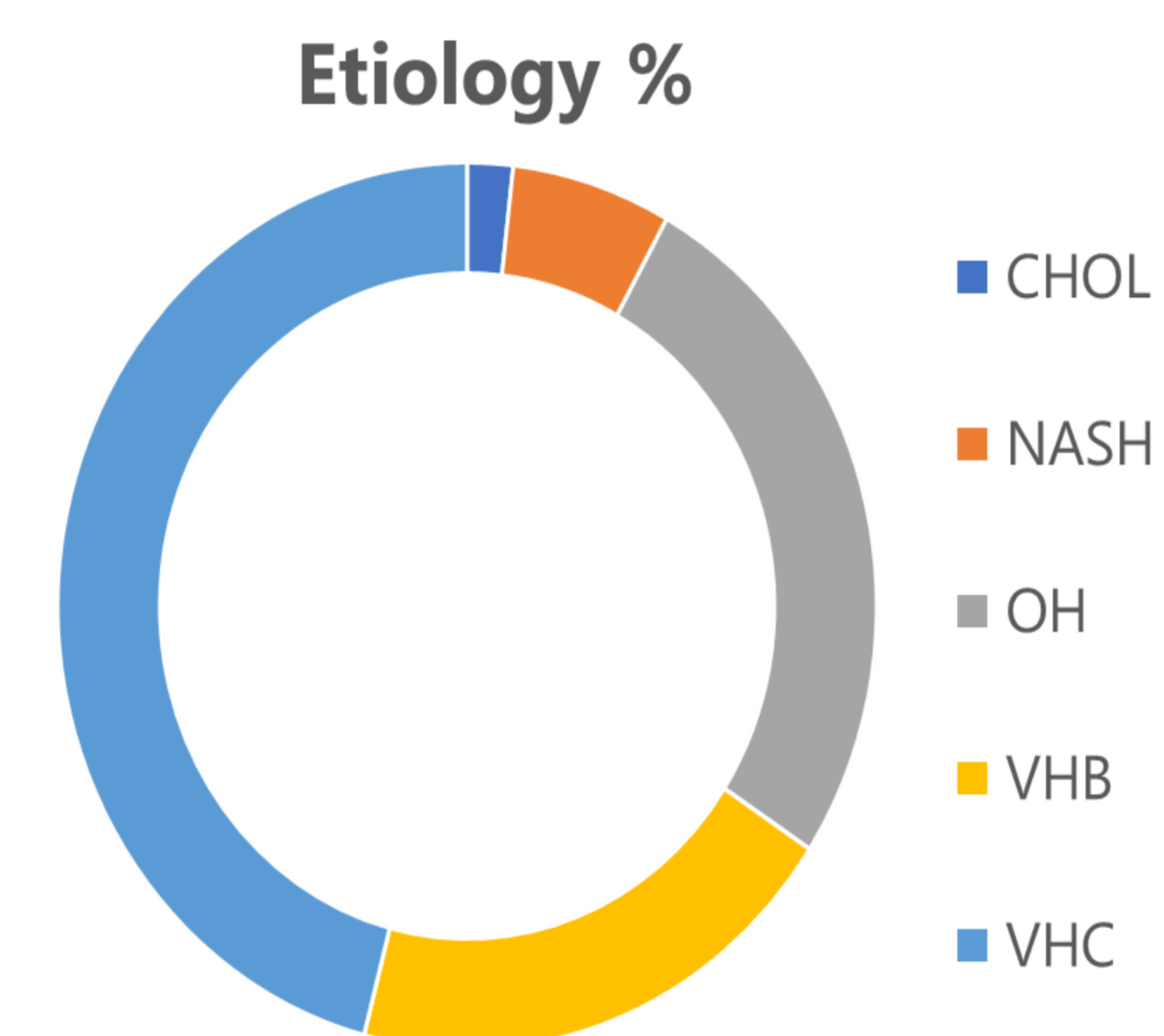
Presence of **CSPH** was defined as:

- HVPG  $\geq$  10 mmHg or presence of esophageal varices;
- splenomegaly;
- thrombocytopenia ( $<100.000/mm^3$ )

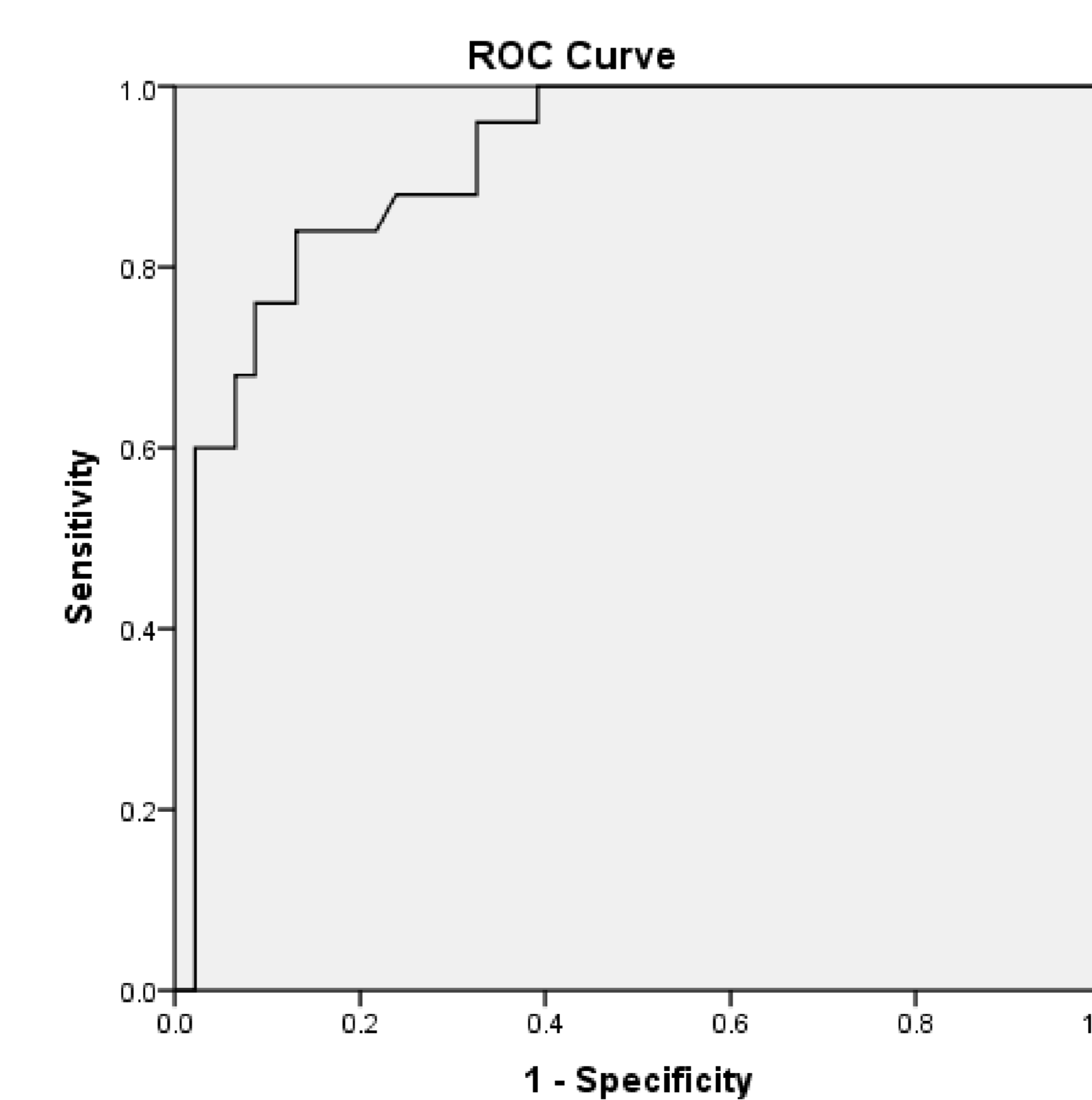
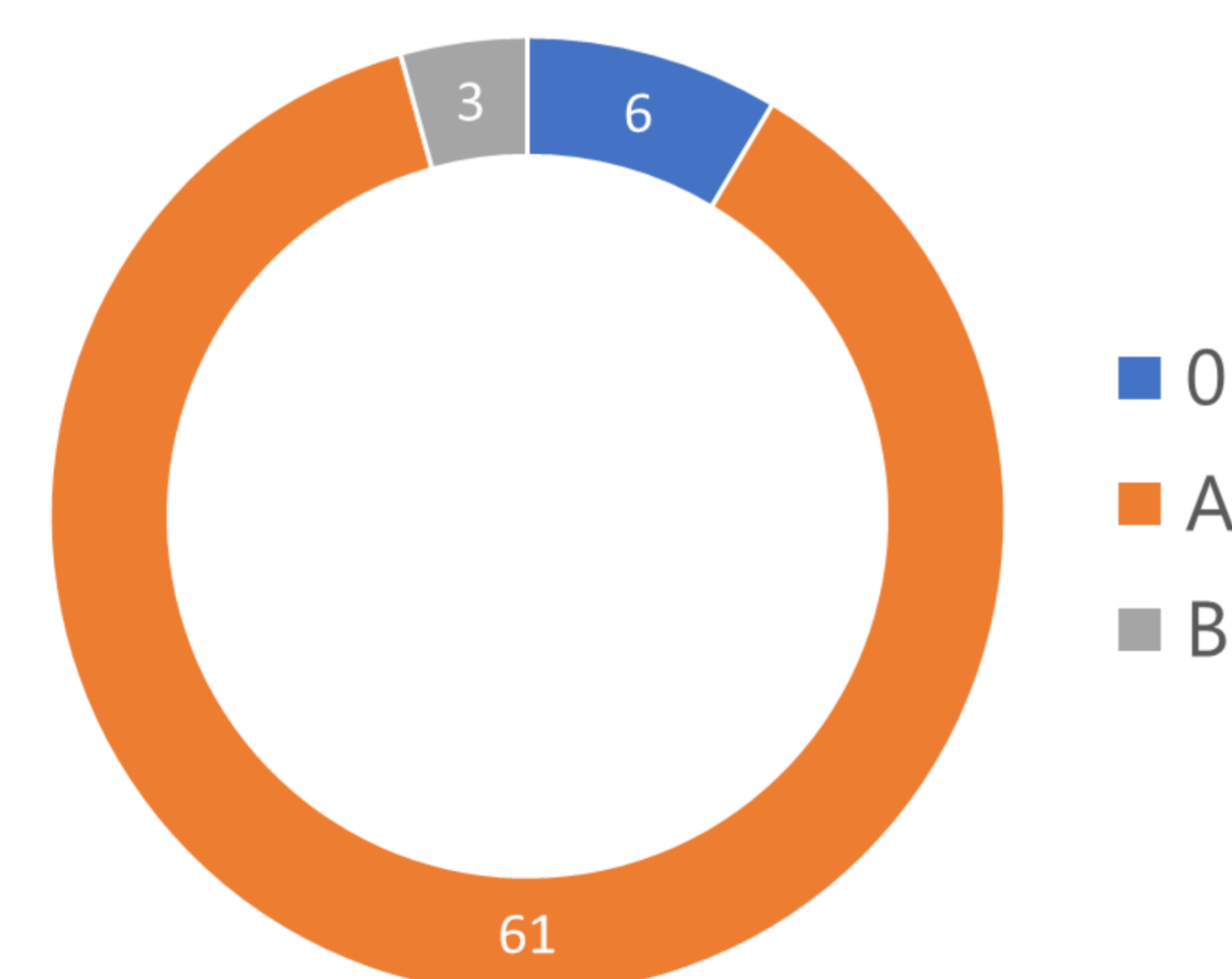
The non-invasive serum tests were: **APRI, FIB-4, NLR, eLIFT, ALBI**

The performance of non-invasive tests in predicting CSPH and prognosis were assessed by **AUROC curves**.

## RESULTS



## BCLC Classification %



## CONCLUSIONS

Although LSM, APRI, FIB-4 and eLIFT may identify patients with CSPH in patients with HCC submitted to hepatic resection, they are not capable to predict prognosis in this clinical setting.

**APRI, FIB4, eLIFT and LSM were good predictors of CSPH.**

ALBI and NLR were not capable of predicting CSPH.

Regarding the prediction of **PHLF**, although the statistical significance was not reached, **LSM, APRI and FIB-4 have a tendency to predict it.**

## REFERENCES

European Association For The Study Of The Liver. EASL clinical practice guidelines: **management of hepatocellular carcinoma.** Journal of hepatology. 2018 Jul 1;69(1):182-236. <https://doi.org/10.1016/j.jhep.2018.03.019> (2018).

## ACKNOWLEDGEMENTS

Grant: CCCDI – UEFISCDI, PROJECT NUMBER: PN-III-P1-1.2-PCCDI-2017-0221/59PCCDI/2018 (IMPROVE), within PNCDI II, Academy of Medical Sciences of Romania

## CONTACT INFORMATION

iuliana.nenu@gmail.com