

# EXTERNAL VALIDATION OF THE INTEGRATED LIVER INFLAMMATORY SCORE (ILIS) AS A PROGNOSTIC INDEX IN PATIENTS WITH HEPATOCELLULAR CARCINOMA

M. CELADA-SENDINO<sup>1</sup>, P. FLÓREZ-DÍEZ<sup>1</sup>, A. CASTAÑO-GARCÍA<sup>1</sup>, L. CARBALLO-FOLGOSO<sup>1</sup>, Á. GEJO<sup>1</sup>, ML. GONZÁLEZ-DIÉGUEZ<sup>1</sup>, C. ÁLVAREZ-NAVASCUÉS<sup>1</sup>, V. CADAHÍA<sup>1</sup>, M. RODRÍGUEZ<sup>1</sup>, M. VARELA<sup>1</sup>.

1- Hospital Universitario Central de Asturias. Liver Unit. ISPA. IUOPA. Universidad de Oviedo. Oviedo. SPAIN.



ILCA category 2: Epidemiology, Staging and Prognosis

## INTRODUCTION

Hepatocellular carcinoma (HCC) is the most frequent primary liver tumor and its heterogeneity makes it relevant to have useful prognostic tool for patient management. Recently, a prognostic index based on inflammatory parameters (ILIS) has been described, predictive of survival from the diagnosis of HCC<sup>1</sup>.

## AIM

The aim of the study is to perform an external validation of the ILIS index.

## METHOD

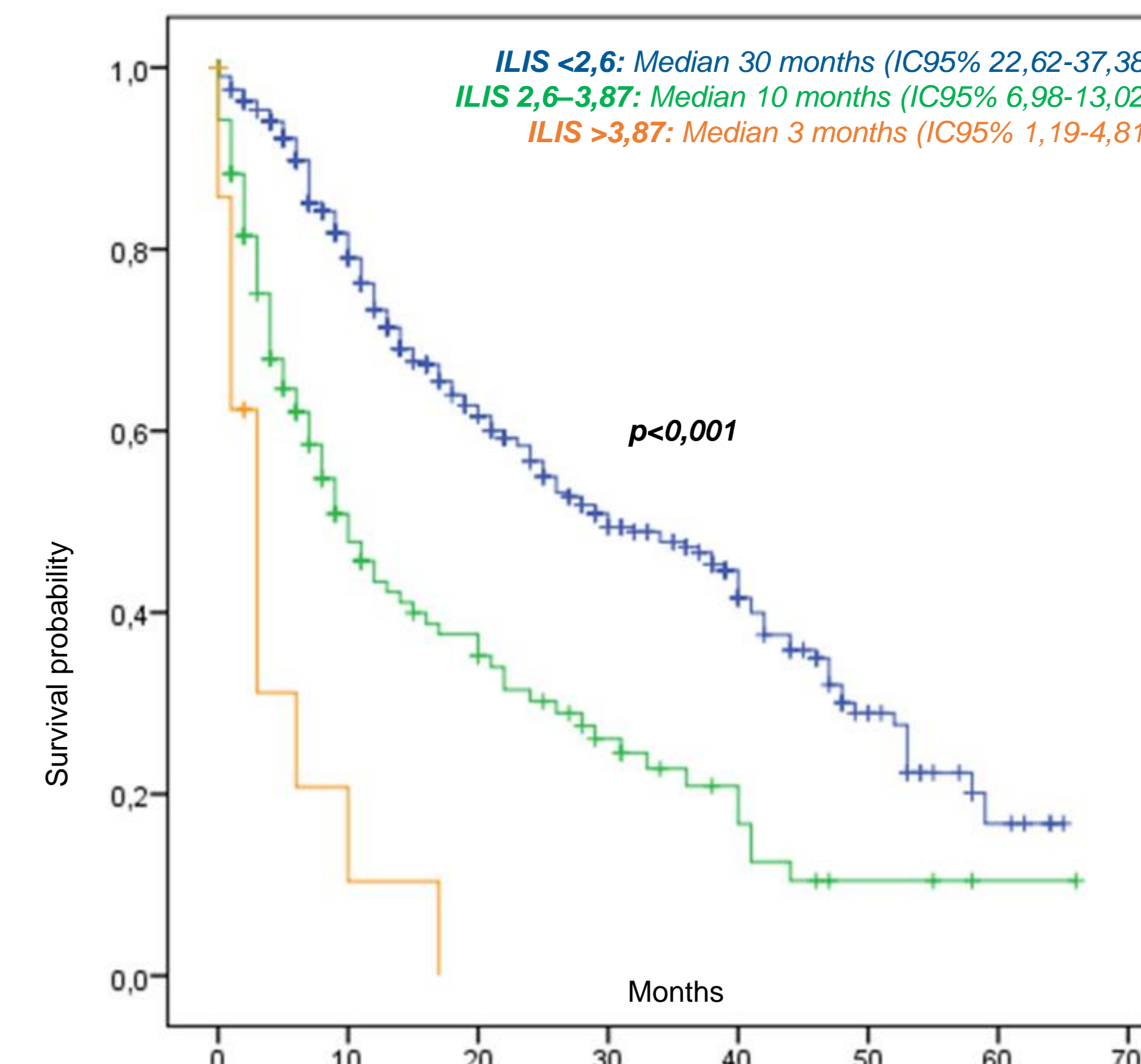
ILIS is calculated with five baseline parameters using the formula:

$$-0.057 \times \text{ALB (g/L)} + 0.978 \times \log(\text{Bi, } \mu\text{mol/L}) + 1.341 \times \log(\text{AP, IU/L}) + 0.086 \times \text{PMN (} 10^9/\text{L)} + 0.301 \times \log(\text{AFP, } \mu\text{g/L}).$$

2.60 and 3.87 are the established cut-off points, categorizing the patients into three groups with different survival rates.

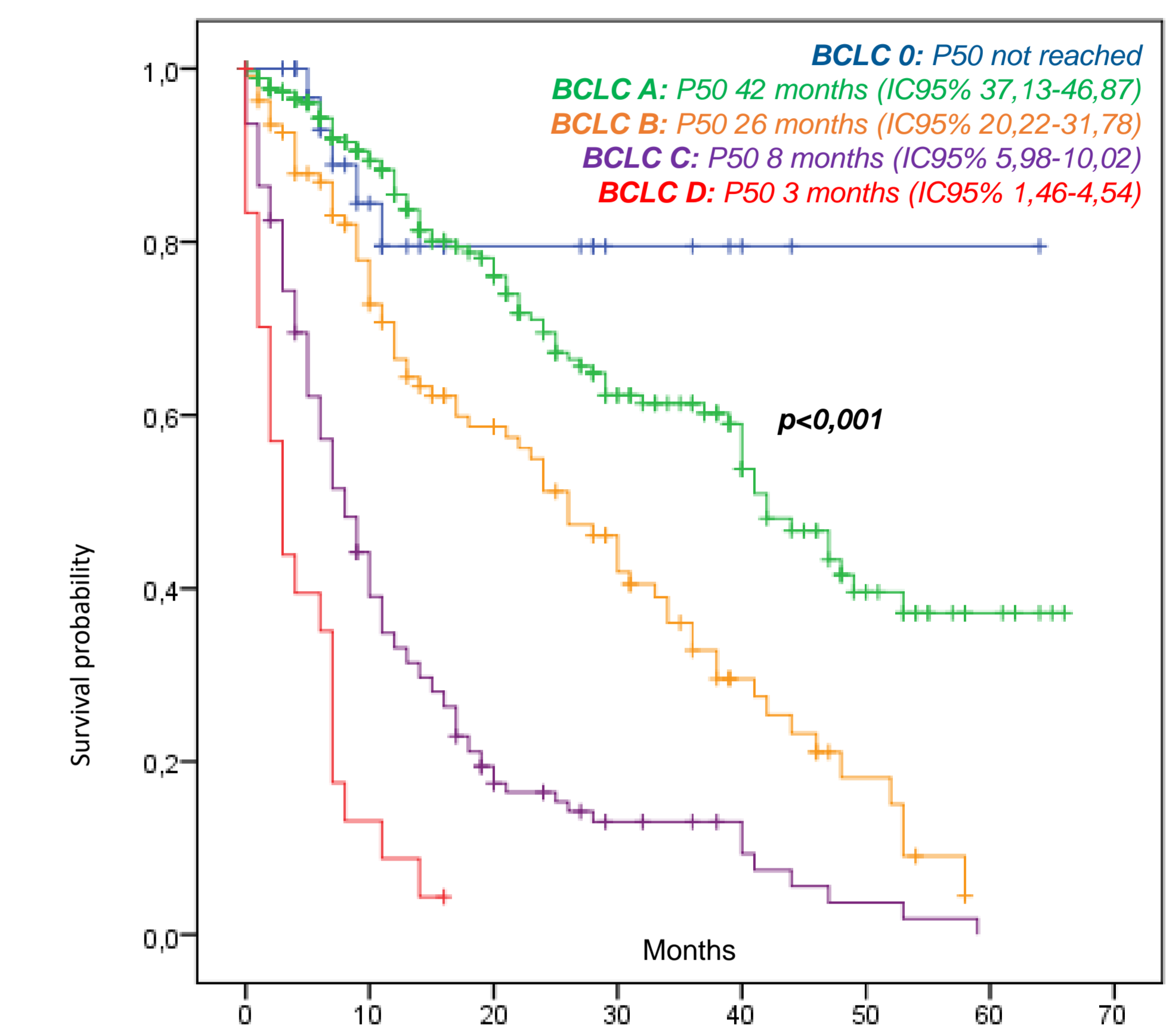
## RESULTS

VARIABLE	TOTAL (N=668)
Male gender, n (%)	574 (85.9)
Age, P50 (IQR)	67 (59-74)
Chronic liver disease, n (%)	623 (93.3)
Etiology, n (%):	
Alcohol	265 (42.5)
HCV	171 (27.4)
NASH	85 (13.6)
HBV	18 (2.9)
Others	84 (13.5)
Child-Pugh, n (%)	
A	480 (78.3)
B	120 (19.6)
C	13 (2.1)
ECOG PS, n (%)	
0	525 (78.6)
1	73 (10.9)
2	49 (7.3)
BCLC, n (%)	
0	45 (6.7)
A	302 (45.2)
B	131 (19.6)
C	147 (22)
D	41 (6.1)
Vascular invasion, n (%)	145 (21.7)
Extrahepatic disease, n (%)	50 (7.5)
Alkaline phosphatase (mg/dl), P50 (IQR)	107 (79-151.75)
Albumin (mg/dl), P50 (IQR)	40 (35-44)
Bilirubin total (mg/dl), P50 (IQR)	1 (1.0-1.6)
Neutrophils/ml, P50 (IQR)	3370 (2450-4700)
AFP (ng/ml), P50 (IQR)	7.6 (3.6-56.3)
ILIS index, P50(IQR)	2.066 (1.66-2.64)
ILIS	
Group 1 (<2.6)	411 (72.9)
Group 2 (2.6-3.87)	139 (24.6)
Group 3 (>3.87)	14 (2.5)
Follow-up in months, P50 (IQR)	11 (5-25.75)



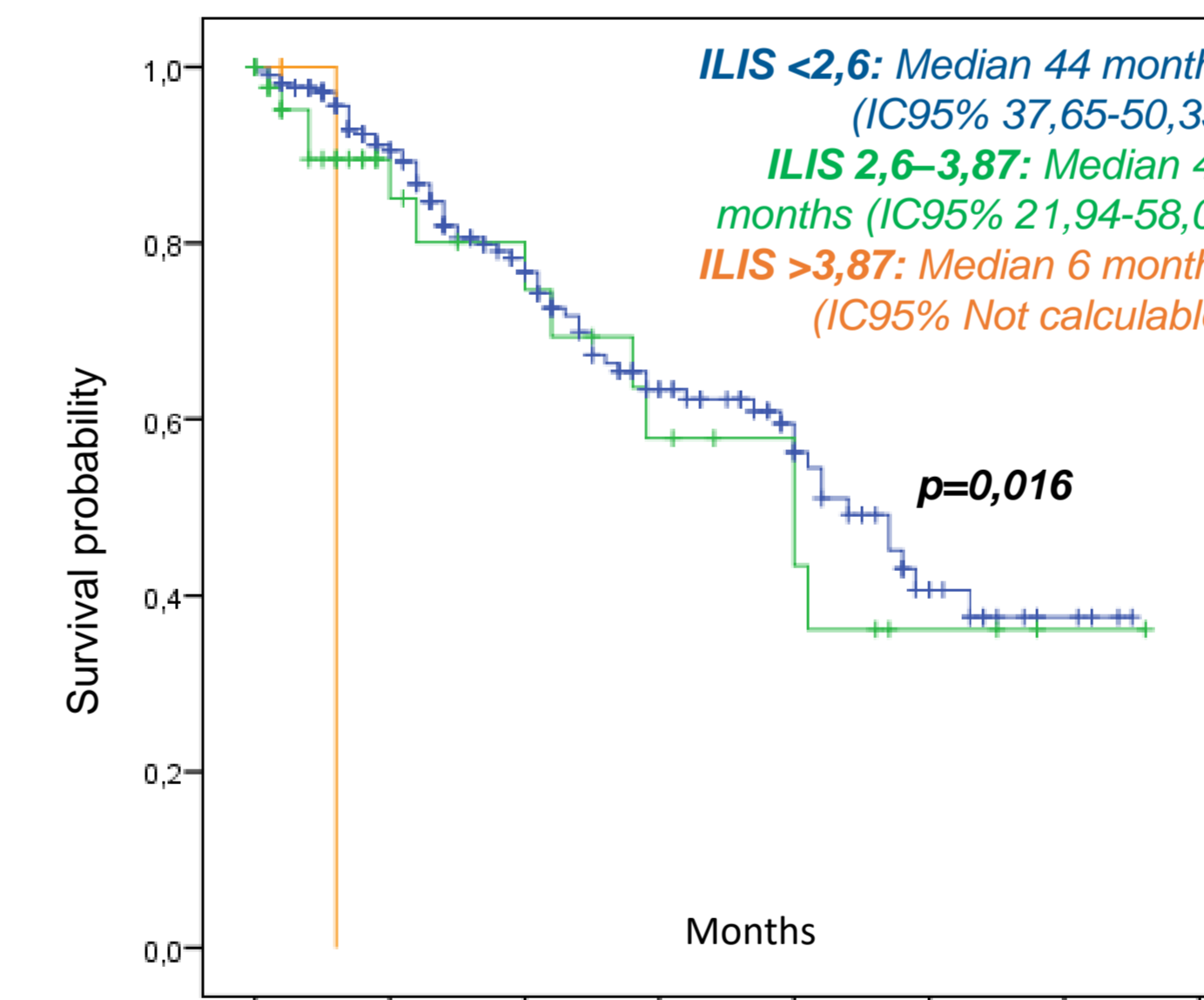
Time (months)	0	10	20	30	40	50	60	70
ILIS <2,6	411	266	162	102	59	25	5	0
ILIS 2,6 - 3,87	139	49	32	17	10	3	1	0
ILIS >3,87	14	2	0	0	0	0	0	0

Figure 1: Overall survival stratified by ILIS index



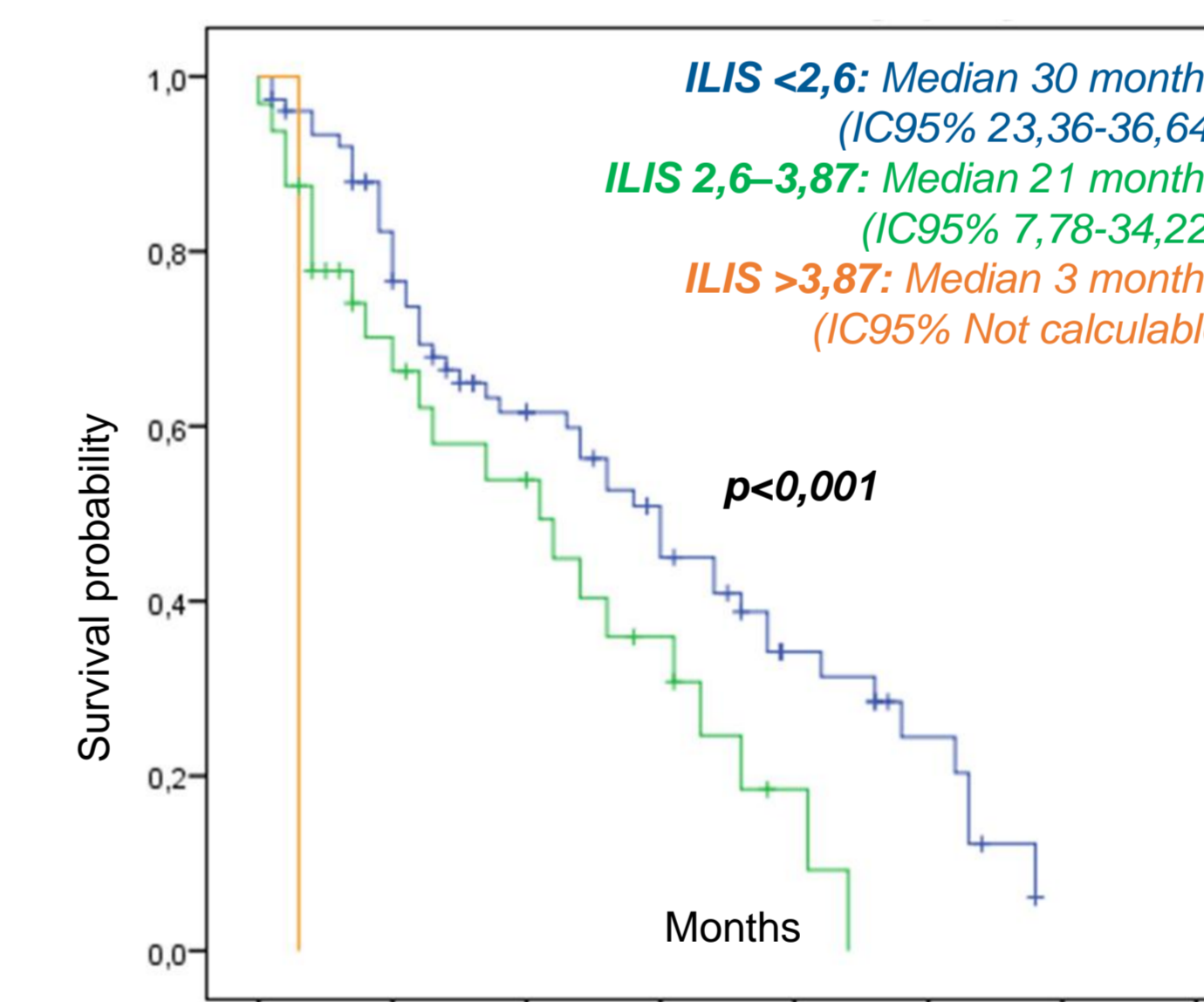
Time (months)	0	10	20	30	40	50	60	70
BCLC 0	35	18	16	6	0	0	0	0
BCLC A	270	168	115	71	45	19	5	0
BCLC B	109	76	50	33	14	6	0	0
BCLC C	126	52	20	10	7	2	0	0
BCLC D	24	3	0	0	0	0	0	0

Figure 2: Overall survival stratified by BCLC stage



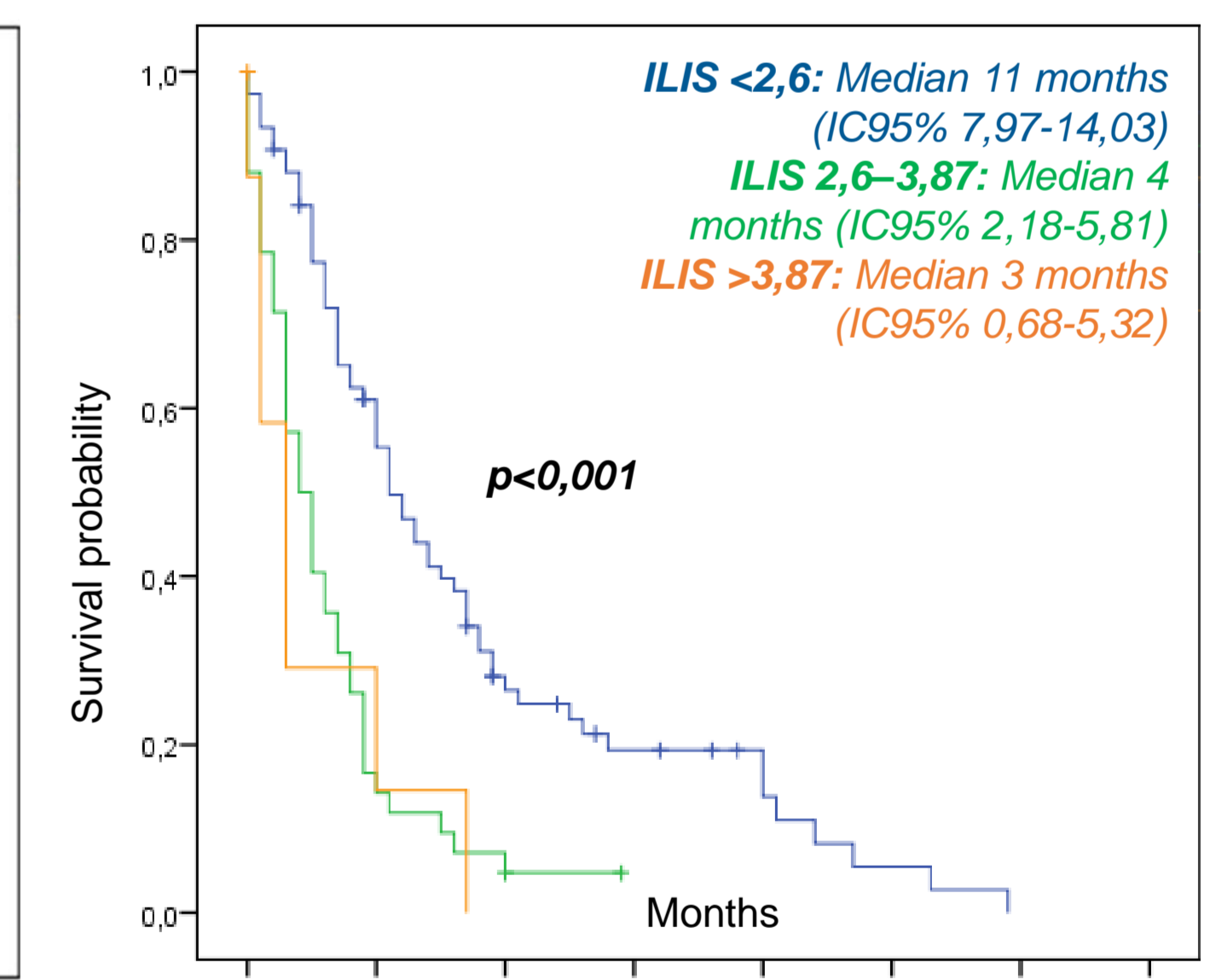
Time (months)	0	10	20	30	40	50	60	70
ILIS <2,6	220	148	100	61	37	16	4	0
ILIS 2,6 - 3,87	47	20	15	10	8	3	1	0
ILIS >3,87	3	0	0	0	0	0	0	0

Figure 3: Median survival in BCLC-A stage stratified by ILIS index



Time (months)	0	10	20	30	40	50	60	70
ILIS <2,6	76	58	37	26	12	6	0	0
ILIS 2,6 - 3,87	32	18	13	7	2	0	0	0
ILIS >3,87	1	0	0	0	0	0	0	0

Figure 4: Median survival in BCLC-B stage stratified by ILIS index



Time (months)	0	10	20	30	40	50	60	70
ILIS <2,6	76	43	17	10	7	2	0	0
ILIS 2,6 - 3,87	42	7	3	0	0	0	0	0
ILIS >3,87	8	2	0	0	0	0	0	0

Figure 5: Median survival in BCLC-C stage stratified by ILIS index

## CONCLUSIONS

The ILIS index is built with 5 bed-side parameters and allows further stratification within BCLC stages. This prognostic tool can help in decision-making for the management of patients with hepatocellular carcinoma.

## REFERENCES

<sup>1</sup>Chan SL et al. Development of a Novel Inflammation-Based Index for Hepatocellular Carcinoma. Liver Cancer. 2020 Apr;9(2):167-181.

## ACKNOWLEDGEMENTS

## CONTACT INFORMATION

Avda Roma S/N, 33011 Oviedo, Asturias, SPAIN.  
Phone: +34 985 108 000 Ext 3950