



# FIB-4 in predicting hepatocellular carcinoma during viral hepatitis: A novel indication for an old tool

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## Introduction:

Hepatocellular carcinoma (HCC) is a severe outcome during liver disease with limited treatment options when diagnosed lately.

It is the leading cause of death in patients with chronic hepatitis, particularly secondary to chronic viral hepatitis. Screening scores are continuously being developed to optimize early diagnosis.

Aim: to investigate the correlation between FiB-4 score and HCC risk during treated chronic viral hepatitis in Tunisian patients.

## Method:

We conducted a single-center retrospective study analyzing data from patients with chronic viral hepatitis B and C. Patients with co-infection BD, D, VIH or associated nonalcoholic steatohepatitis were excluded. FIB4 score was calculated for each patient at presentation.

## Results:

Patients	N= 88
Mean age	51.5 ±12
Extremes	17-79
sex-ratio M/F	1.31
Patients with cirrhosis	37.2%
Mean Meld	6+/-1.4

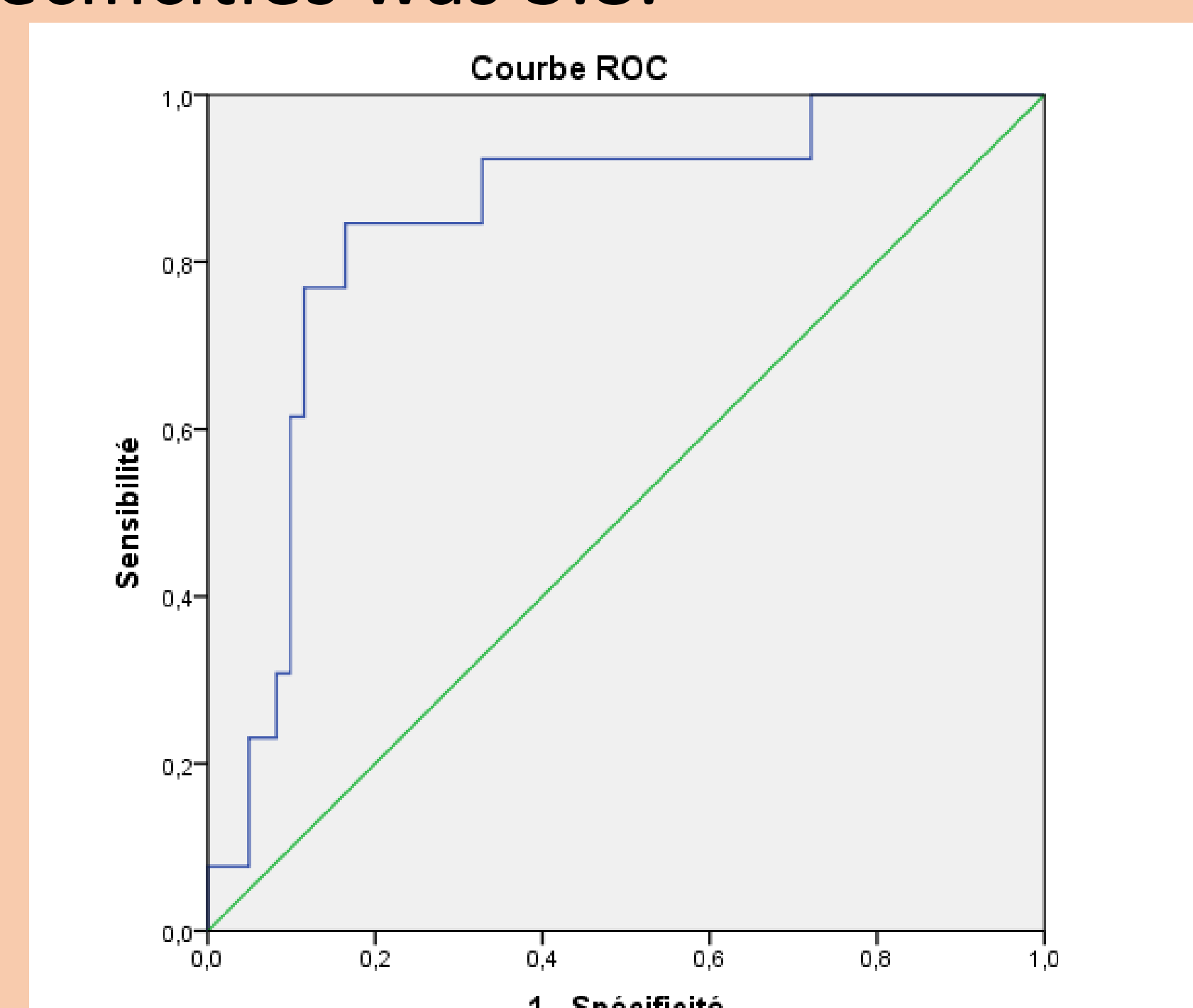
Table 1: Characteristics of patients

- ✓Virological response was achieved in 92% of the population.
- ✓HCC occurred in 16% (N=14) of patients after a mean follow-up period of 79 months ( range 12-257 months).
- ✓The table below explains outcomes after a mean follow-up period of 79 months (range12-257 months).
- ✓HCC occurred in 16% (N=14) of patients after a mean follow-up period of 79.
- ✓The stage of HCC was classified as 'A', 'B', 'C' and 'D' according to BCLC clasification in 28.5%, 25%, 43% and 0.7% respectively.

Patients	N= 88
Older age	0.02
Low platelet count	<0.0001
Cirrhosis	<0.0001
High bilirubin level	0.028
high Fib-4	0.01

Table 2: Associated factors with HCC occurrence in univariate analysis

- ✓When analazing the ROC curve, AUC of aMAP score in preticting HCC was 0.845 (95% CI: 0.730–0.960, p<0.0001)
- ✓The corresponding FIB-4 cut-offs for 90% sensitivities was 1.67, while the cut-offs for 90% specificities was 3.8.



## Conclusion:

In our study, high FIB-4 score was associated with increased HCC risk in patients with viral hepatitis. FIB-4 index is based on routinely clinical and biological data and showed highly predictive performances in predicting HCC allowing better stratification.