THE ROLE OF SERUM WISTERIA FLORIBUNDA AGGLUTINATION POSITIVE MAC-2 BINDING PROTEIN IN PREDICTION OF ESOPHAGEAL VARICES IN HEPATITIS C VIRUS-RELATED CIRRHOTIC PATIENTS

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Introduction

HCV infection is one of the main causes of chronic liver disease worldwide.

Liver cirrhosis is the final stage of chronic liver injury with a high mortality. The transition from compensated forms to decompensated cirrhosis occurs at a rate of 5-7% per year. Once patients have developed the first episode of decompensation, complications tend to accumulate and life expectancy is dramatically decreased. Portal Hypertension is the initial and main consequence of cirrhosis and is responsible for the majority of its complications such as ascites, hepatic encephalopathy and gastroesophageal varices. Variceal haemorrhage is considered the most lethal complications of portal hypertension with a six-week mortality after an episode of bleeding ranges between 15% and 25%. So early detection and management of esophageal varices is very crucial in cirrhotic patients.

Serum WFA- M2BP, is a cell adhesive glycoprotein of the extracellular matrix secreted as a ligand of galectin 3.It is secreted from many cell types, particularly hepatocytes. It has been shown to increase with the progression of liver fibrosis.

Aim of the work

The aim of this work is to evaluate accuracy of WFA +ve MAC-2 binding protein as a non-invasive predictor of esophageal varices and to provide a tool for selecting patients for whom endoscopy may be more beneficial in patients with HCV-related liver cirrhosis.

Patients and Methods

PATIENTS:

The study conducted on 100 patients of HCV-related liver cirrhosis attending the Tropical Medicine Department, Alexandria Main University Hospital.

Group I: 40 cases with liver cirrhosis and small varices grade I-II.

Group II: 40 cases with liver cirrhosis and large varices grade III-IV.

Group III: 20 cases with liver cirrhosis and no varices .

METHODS: All patients were subjected to the following :

1. Liver functions tests
2. HCV detection by HCV antibodies and (PCR).
3. FIB-4 index
4. APRI score
5. Serum WFA+ve Mac 2 binding protein By ELISA
6. Ultrasound abdomen and pelvis.
7. Upper GIT endoscopy.

Results

Table 1: Agreement (sensitivity, specificity) for WFA Mac2bp to predict with varices (group A + B) (n = 80) from without varices (group C) (n = 20)

	AUC	p	95% C.I	Cut off	Sensitivity	Specificity	PPV	NPV
WFA Mac2bp	0.754	<0.001*	0.662 – 0.847	>14.4#	68.75	95.0	98.2	43.2

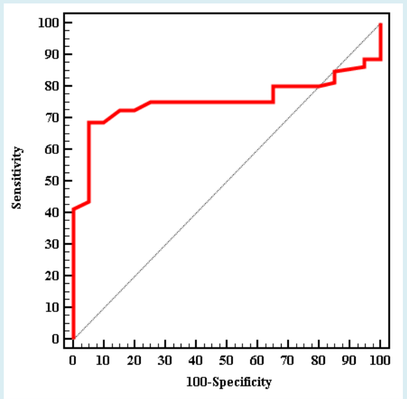

Figure 1: ROC curve for WFA Mac2bp to predict with varices (group A + B) (n = 80) from without varices (group C) (n = 20)

Table 2: Agreement (sensitivity, specificity) for WFA Mac2bp to predict large varices (group B) (n = 40) from small varices (group A) (n = 40)

	AUC	P	95% C.I	Cut off	Sensitivity	Specificity	PPV	NPV
WFA Mac2bp	0.662	0.013*	0.539-0.784	>15	70.0	50.0	58.3	62.5

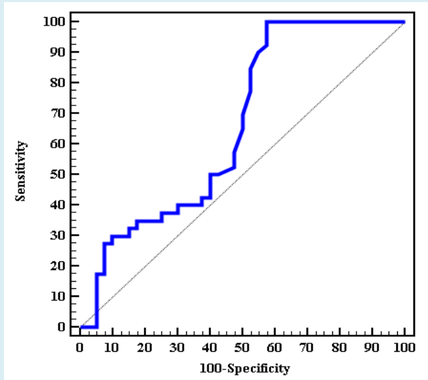

Figure 2: ROC curve for WFA Mac2bp to predict large varices (group B) (n = 40) from small varices (group A) (n = 40)

Conclusion

* The present study stated that serum WFA+-M2BP is a good, applicable, cheap noninvasive predictor for the presence of esophageal varices with high sensitivity and specificity.
* Serum WFA+-M2BP can be used as noninvasive marker for grading of esophageal varices.