



## Serum osteopontin and cytokeratin-18 in chronic hepatitis C patients

Gamal Y Aboraia

Menoufia University, Egypt

### Abstract:

Chronic hepatitis C is a global health problem; most patients are at risk for developing fibrosis and cirrhosis. Histological examination of liver biopsies is currently the gold standard for the detection of early liver damage, but there is a strong need for better noninvasive methods. The aim of this study was to evaluate the association between serum osteopontin (OPN) level, serum cytokeratin 18 M30 (CK-18 M30) neopeptide level and the histological severity of hepatic fibrosis in hepatitis C virus (HCV) induced patients. This study included 89 subjects; 70 with chronic hepatitis C virus infection. They were classified into 2 groups according to METAVIR fibrosis stage as follows: Group I (stage 2 or less was considered as mild liver fibrosis) included 50 patients; and group II (stage 3 or more was considered as extensive fibrosis) included 20 patients and 19 healthy matched age and gender as a control group. All subjects were submitted to the following: Thorough history taking, complete clinical examination, and serum concentrations of osteopontin and cytokeratin 18 M30 neopeptide were measured by enzyme linked immunosorbent assay (ELISA). The results revealed that there were high significant differences of OPN & CK-18 M30 between patients and control ( $P < 0.001$ ). There was a high significant difference of OPN ( $P < 0.001$ ) & a significant difference of CK-18 M30 ( $P = 0.02$ ) when compared between mild fibrosis and extensive fibrosis groups. There was a high significant correlation of serum OPN concentrations with severity of liver fibrosis degree ( $r = 0.75$ ,  $P < 0.001$ ), while the serum CK-18 M30 concentrations showed a significant correlation ( $r = 0.33$ ,  $P = 0.005$ ). In ROC curve, serum OPN at the cut-off point



of 3.1 ng/ml could discriminate mild from extensive fibrosis with sensitivity of 95%, serum CK-18 M30 at the cut-off point of 293 ng/ml could discriminate mild from extensive fibrosis with sensitivity of 70%. Finally, from obtained study, results showed that serum OPN levels was better than CK-18 M30 in identification the degree of hepatic fibrosis and could be used as a biomarker to assess the stage of fibrosis in HCV patients which would help to reduce the number of liver biopsies.

### Biography:

Gamal Y Aboraia is an Assistant Professor of Clinical Pathology, Dept. of Clinical & Chemical Pathology, at National Liver Institute, Menoufia University. He is Director of Clinical Chemistry Unit at National Liver Institute lab. He has published more than 20 papers in reputed journals. He is a supervisor of more than 20 Master's & Doctorate theses.

### Publication of speakers:

1. Gamal Y Aboraia et al, Chronic lymphocytic leukemia: Risk factors and complications, Diabetes Metab Syndr Obes, 2019 Dec 19;12:2715-2723.

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