

2<sup>nd</sup> International Conference on

CANCER BIOLOGY, THERAPEUTICS AND DRUG DISCOVERY AND DELIVERY

&

10<sup>th</sup> Annual Congress on

BIOMARKERS, CLINICAL RESEARCH & THERAPEUTICS

October 03-04, 2018 | Los Angeles, USA

## The impact of smoking on serum levels of osteopontin in patients with Hepatitis C related liver cirrhosis and its role in carcinogenesis

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Hepatitis C is one of the most important global chronic infection worldwide. Smoking causes a variety of adverse effects on organs that have no direct contact with the smoke itself such as the liver. It has been reported that smoking increases fibrosis score and histological activity index in chronic hepatitis C (CHC) patients. Our study aimed at investigating the effect of heavy smoking on levels of osteopontin and its role in carcinogenesis in patients of hepatitis C. This study was conducted on 75 volunteers (males or females) divided into four groups. The first was comprised of 15 normal healthy persons (control group) non-smokers. The second was comprised of 10 HCV-negative heavy smokers, the third was comprised of 25 HCV positive cirrhotic nonsmokers (Child-Pugh Class A) and the fourth was comprised of 25 HCV positive cirrhotic smokers (Child-Pugh class A). The results revealed that hepatitis C-positive subjects groups have statistically significant elevated serum alpha-fetoprotein levels than those of hepatitis C-negative group ( $P < 0.001$ ). Results also revealed a statistically significant elevation of serum levels of osteopontin in hepatitis C-positive patients in comparison to its levels in hepatitis C-negative subjects ( $P < 0.001$ ). HCV-positive cirrhotic smokers exhibited the statistically significant increase of serum osteopontin in comparison to its levels in HCV-positive cirrhotic nonsmokers ( $P < 0.004$ ). The mean serum osteopontin level in hepatitis C-negative smokers shows statistically significant elevation in comparison to hepatitis C-negative nonsmokers (healthy control) ( $p < 0.005$ ). Smoking increases levels of osteopontin in sera of hepatitis C-positive smokers which may accelerate the process of hepatic fibrosis through OPN-induced inflammatory pathways. It increases the risk of hepatocarcinogenesis.

### Biography

M A Megahed works as a professor in biochemistry at Medical Research Institute, MRI, Alexandria University, Egypt. She was graduated from Faculty of Medicine, Alexandria University and completed Master and PhD degrees in Biochemistry at Medical Research Institute, Alexandria University. She is the Program Coordinator of PhD Degree in Biochemistry and Course Coordinator of courses in Medical Biochemistry and courses in Molecular Biology at MRI. She has published about 30 papers and supervised a number of master and doctorate thesis. In addition, her activities involved attendance and participation in medical and scientific conferences in Egypt and abroad.

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