



# ASSESSMENT OF NLRP3 INFLAMMASOME AND OXIDATIVE STRESS IN EGYPTIAN PATIENTS WITH HEPATITIS C VIRUS-RELATED HEPATOCELLULAR CARCINOMA

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**Abstract:**

Hepatocellular carcinoma (HCC) is the second most common cause of cancer-related death worldwide. It originates on a bed of chronic inflammation that progresses from fibrosis to cirrhosis and finally culminates in HCC. Hepatitis C virus (HCV) a risk factor of HCC, however The exact mechanism linking HCV induced inflammation and liver cancer remains elusive. Inflammasomes, especially the NLR pyrin-containing 3 (NLRP3) inflammasome, are identified as players linking inflammation and cancer. It assemble in response to diverse array of stimuli by sensing a common cellular signal such as (ROS) induced in response to its activators. It triggers inflammation which implicated in many diseases.

Asses the relation of NLRP3 inflammasome and oxidative stress in HCC and study their value as potential reliable indicators for HCV-related cirrhosis and HCC.

serum samples from 20 patients with CHC ,20 cirrhotic patients without HCC ,20 patients with HCC and 20 healthy controls subjected to measurements of NLRP3 level , Malondialdehyde (MDA)and total antioxidant capacity (TAC). Liver specimens from patients with CHC, cirrhotic patients with and without HCC subjected to Immunohistochemical staining using antibodies against NLRP3.

Significant increase in level of serum NLRP3 ,MDA and tissue NLRP3 in HCC patients than cirrhotics without HCC which have higher level than CHC patients, Healthy controls have the lowest level .The TAC is decreased in HCC patients than cirrhotics without HCC which have lower level than CHC patients.

**Biography:**

Hend Mohammed Batea is Demonstrator At Medical Biochemistry Department .Faculty of Medicine, Alexandria University.

**Recent Publications:**

1. Molinari, N.A., Ortega-Sanchez, I.R., Messonnier, M.L., Thompson, W.W., Wortley, P.M., Weintraub, E., and Bridges, C.B. (2007). The annual impact of seasonal influenza in the US: measuring disease burden and costs. *Vaccine* 25, 5086–5096.



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3. CDC COVID-19 Response Team (2020). Severe outcomes among patients with coronavirus disease 2019 (COVID-19) - United States, February 12-March 16, 2020. *MMWR Morb. Mortal. Wkly. Rep.* 69, 343–346.
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