

The Conquering influence of the Nano extracts of pomegranate peels and pistachio leaves in amelioration of acute liver failure



Sohair Aly Hassan
National research Center, Cairo, Egypt

Abstract

Introduction: Acute liver failure (ALF) is a clinical condition with an unclear history of pathophysiology, making it a challenging task for scientists to reverse the disease in its initial phase and help liver to re-function as usual: This study was proposed to estimate the hepatoprotective effects of *Punica granatum L* peel and *Pistacia atlantica* leaves as a multi-rich antioxidants ingredients either in their normal and/or in their nano forms against thioacetamide induced acute liver failure in a rodent model.

METHODS: Sixty male Wistar rats were divided into six equal groups, the first group being used as a control; the second group was given a dose of thioacetamide (TAA)-350 mg/bw ip., from the third to the sixth group received TAA + 2ml of 100gm of aqueous extracts of *Punica granatum L* and *Pistacia atlantica* either in their normal and/or Nano forms consecutively along 2 weeks.

Results: The results recorded significant elevation in liver enzymes, lipid profiles, LPO and NO with marked significant decrease in GSH and SOD accompanied by elevation in inflammatory cytokine (IL6, TNF- α and AFP) in addition to a noticeable increase in HSP₇₀ level & degradation in DNA respectively in TAA challenged group. However significant and subsequent amelioration of most of the impaired markers has been observed with ip nano treatment of both extracts.

Conclusion: The current results highlighted the high performance of both plant nano extracts and their hepatoprotective impact and their possible therapeutic role in the amelioration of TAA induced acute liver failure in experimental animals.

Keyword: Acute liver failure, thioacetamide, HPLC, nano extracts, TNF- α , IL6.

Biography:

Sohair Aly Hassan, Ph.D., is academic scientist with over 25 years' experience leading multi-disciplinary international line and matrix-research teams spanning target identification to clinical candidate selection. Sohair also has broad academic experience in physiology teaching modalities with a record of successful enterprise leadership and collaborative working. she has published more than 30 papers in reputed journals and has been serving as an editorial board member of reputable journals.

Speaker Publications:

1. "Efficacy of Novavit in ameliorating the neurotoxicity of propionic acid"; Translational Neuroscience, 2020, 10.1515/tnsci-2020-0103
2. "The remarkable role of rosemary officinalis & tamarix aphylla against radiation based therapy"; International Journal of Pharma and Bio Sciences, 2017, 10.22376/ijpbs.2017.8.4.b292-301

[12th International Conference on Medicinal Chemistry and Drug Discovery](#); October 14-15, 2020, webinar.

Abstract Citation:

Sohair Aly Hassan, The Conquering influence of the Nano extracts of pomegranate peels and pistachio leaves in amelioration of acute liver failure, Euro Medicinal Chemistry 2020, 12th International Conference on Medicinal Chemistry and Drug Discovery, October 14-15, 2020, webinar. (<https://medicinalchemistrymeetings.pharmaceuticalconference.com/abstract/2020/the-conquering-influence-of-the-nano-extracts-of-pomegranate-peels-and-pistachio-leaves-in-amelioration-of-acute-liver-failure>)

