

12TH ANNUAL PHARMA MIDDLE EAST CONGRESS

September 25-26, 2017 Dubai, UAE

Effects of herniarin on sepsis induced rats' liverTuba Aydin¹, Huseyin Serkan Erol², Ahmet Cakir³, Serkan Yildirim², Yavuz Selim Salam² and Mesut Halici²¹Agri Ibrahim Cecen University, Turkey²Ataturk University, Turkey³Kilis 7 Aralik University, Turkey

Sepsis development can result in death, through the passage of microorganisms into the blood entering the body and spreading to all organ systems. *Artemisia dracunculus* L., tarragon, which is used in various parts of the world as spice, has long been used in traditional therapy. Tarragon leaves have important coumarin content and contain high amounts of herniarin (HRN). One of the most frequently used animal models in the study of sepsis is cecal ligation-puncture in rats. In the present study, effects of HRN, isolated from tarragon was investigated on sepsis induced rats' liver tissues. Therefore, 40 male rats were divided into 4 groups as Sham, Control, HRN-150 and HRN-300. HRN was orally given (at doses of 150 and 300 mg/kg) and then rats' cecums were ligatured and perforated by a cannule. After 24 hours after administration of HRN, rats were euthanized under high dose anesthesia. Both histopathologic and biochemical examinations were performed in the liver tissues of sepsis induced rats. Lipid peroxidation (LPO) and glutathione (GSH) levels, as well as superoxide dismutase (SOD) and catalase (CAT) activities were measured as biochemical parameters. In the control group, as compared with sham group, both LPO level and CAT activity increased significantly ($p < 0.05$), in contrast to the decreased amounts of GSH and SOD activity. In the HRN groups, the LPO and CAT was significantly decreased and also decreased amounts of GSH and SOD activity was increased dose dependently. According to the results histopathologically, damage findings are decreased as parallel to the biochemical data in a dose-dependent manner. As conclusion HRN dose-dependently decreased sepsis resultant liver damage ($p < 0.05$).

Biography

Tuba Aydin has completed her PhD from Ataturk University in 2012. She is currently working as an Assistant Professor in the Faculty of Pharmacy at the Agri Ibrahim Cecen University, Turkey, where she has been a Faculty Member since 2013. She has expertise in isolation and characterization of phytochemicals from natural products.

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