Possible ameliorative effects of Melatonin and/or Silymarin against the toxic isouramil favism factor

Mohamed M Amin and Mahmoud S Arbid
National Research Centre, Egypt

Isouramil (IU) is the aglycon of the glycoside convicine isolated from Faba beans (Vicia Faba L.) which cause a hemolytic crisis called favism in patients deficient in glucur-6-phosphate dehydrogenase (G6PD). In the present study, the experiments were carried out in male Sprague dewely rats (150-160 gm) to determine if administration of melatonin and/or silymarin (as a free radical scavenging compounds) affected the toxicity of IU. Intraperitoneal injection of IU (240 mg/kg b.wt) alone resulted in 100% mortalities within 24 hr. accompanied with rapid decrease in the concentration of glutathione (GSH) in the red blood cells and disturbances in liver and kidney functions. Administration of both doses of melatonin (1&2 mg/kg b.wt) and silymarin (50 mg/kg b.wt) for 1 month with IU greatly reduced mortalities, elevates the concentration of GSH. Also, red blood cells and hemoglobin almost nearly returned to normal values. Liver enzymes (AST, ALT, ALP and bilirubin) and kidney function (blood urea and creatinine) also returned nearly to the normal values if compared with normal control group.

Biography
Mohamed M Amin has completed his PhD from faculty of pharmacy, Cairo University. He is a researcher at Department of Pharmacology, Medical Division, National Research Centre. He has published 3 papers in reputed journals and has been serving as an Editorial Board Member in many international journals.

Notes:

mohamedmahmoud1983@gmail.com