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## ACUTE AND SUB ACUTE TOXICITY STUDY OF HYDROALCOHOLIC EXTRACT OF UNANI FORMULATION: (MAJOON HAJRUL YAHOOD) USED IN UROLITHIASIS

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### Keywords:

Majoon hajrul yahood, Unani medicine, Toxicity, Formulation

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**ABSTRACT: Background:** Majoon hajrul yahood is a polyherbomineral formulation commonly used in the Unani system of medicine for the management of urolithiasis. In this study safety of a hydroalcoholic extract of Majoon hajrul yahood was evaluate in Wistar rats. **Materials and Methods:** The hydroalcoholic extract of the formulation were tested for acute and sub-acute toxicity study. The single-dose (300, 2000, and 5000 mg/kg) of the extract was administered orally to female rats. In the subacute study, the extract was given at doses of 1/5, 1/10, and 1/15 mg/kg (1000, 500, and 333.33 mg/kg) of maximum dose (5000 mg/kg) of acute toxicity study during 28 days orally. Mortality, changes in body weight and food consumption, organ weights, biochemical, hematological, and histopathology of the organs were performed. **Results:** In the acute study, the extract was classified as safe, according to the OECD guide in category 5. In the present study, results revealed that subacute treatment with test extract, there is no changes in biochemical, hematological, and histological changes in the tissues. **Conclusion:** The no-observed-adverse-effect level (NOAEL) was found 5000 mg/kg/day in this study for both the sexes. The hydroalcoholic extract of the Majoon hajrul yahood did not show any signs of toxicity or changes in hematological, biochemical, and histological parameters in rats when different doses were administered for 28 days.

**INTRODUCTION:** Plant-derived medicines have been known as unique sources for delivering many bioactive lead compounds for the development of new medicines and also for the treatment and prevention of various ailments of the human body and are easily accessed, an affordable, efficacious and culturally acceptable form of drug<sup>1</sup>. Unani system of medicine advocates therapeutic uses of herbal, mineral, and metallic preparations in many diseases since century in clinical practice. Plants are popular remedies for diseases that used most of the world's population.

Herbal preparations currently serve the health needs, and there is clear evidence of the therapeutic benefits they have attained widespread acceptability as therapeutic agents<sup>2,3</sup>. It is a widely held belief that herbal preparations are safe. However, despite the belief and claim of being natural and safe, herbal remedies have been associated with lethal effects, which have been attributed to several factors. These factors include hepatic toxicity of the main constituents and contamination of preparations by heavy metals or microorganisms<sup>3</sup>.

The Unani system of medicine is gaining acceptance globally due to the potential of its formulations for the treatment of several chronic conditions. Although it is a traditional system of medicine being practiced since centuries, there is negligible documented evidence regarding their safety and effectiveness. However, the need of the

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