

## Physicochemical and phytochemical analysis of Majoon e Gheekawar herbal formulation

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Majoone Gheekawar (MG) is a Unani herbal formulation mentioned in the National Formulary of Unani Medicine (NFUM), India, which has been used for centuries in the Unani system of medicine. The drug is known for its pharmacological actions such as *Mohallile Waram* (anti-inflammatory), *Muqawwie A'asab* (nerve stimulant), laxative, diuretic, antioxidant, *Musaffie Khoon* (blood purifier), *Mushile Akhlat* (evacuation of morbid materials), liver stimulant, and immune modulator. These diverse properties make MG a valuable option for addressing various health conditions. WHO guidelines emphasize that standardization is a critical first step before any experiment claiming safety and efficacy, particularly for herbal medicines. Considering the above facts and the effectiveness of MG, this study was aimed at establishing the physicochemical and phytochemical standards for this herbal formulation. This formulation contains three ingredients, namely, *Maghze Gheekawar* (*Aloe vera* pulp), *Sheere Gao* (cow's milk), and *Qand Safaid* (sugar). In this study, ingredients were purchased from a local market, and MG was prepared according to NFUM. The physiochemical evaluation was carried out according to WHO guidelines for quality control for herbal medicine, such as organoleptic parameters, loss on drying, pH, extractive values, ash values, and preliminary phytochemical analysis. MG is a light brown semi-solid preparation with a milky smell and sweet taste. The results of physicochemical analysis revealed that loss on drying is  $15.5 \pm 0.26\%$ ; the pH of 1% and 10% solutions are 5.4 and 5.6, respectively. Also, the total ash value is  $2.8 \pm 0.32\%$ , and acid-insoluble ash is  $1.2 \pm 0.2\%$ . The aqueous extractive value is  $75 \pm 0.2\%$ , while the methanolic extractive value is  $45 \pm 0.42\%$ . Further, qualitative phytochemical analysis revealed that the aqueous extract contains carbohydrates, glycosides, phenolic compounds, flavonoids, proteins, and amino acids. In conclusion, the physicochemical and phytochemical results of MG as established in this study could be used as a standard reference for future studies.

**Keywords:** *Majoone Gheekawar, Unani medicine, Physicochemical, Phytochemical*