Renovation and Standardization of a Historical Pharmaceutical Formulation from Persian Medicine: Chamomile Oil

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ABSTRACT Medicinal oils were of the pharmaceutical dosage forms used since ancient Persian times to now in
Chamomile oil is one of the medicinal oils prepared by the extraction of the chamomile flowers to sesame oil as an oily vehicle. It was widely used in the history of Persian medicine and is currently used by traditional practitioners of Persian Medicine in various disorders mainly in topical form. In this study, traditional chamomile oil was prepared based on the Qarabadin books. In advanced, 600 g of chamomile flower powder was boiled in 3.6 liter of water for 3 hours. Then, powder was removed and remained water (aqueous extract of chamomile) was boiled with 0.5 liter of sesame oil for 2 hours (until all the water was vaporized and oil remained). For standardization, the essential oil of chamomile oil was obtained via Clevenger apparatus method and then analyzed with the help of gas chromatography (GC)-mass method. In addition, total phenolic and flavonoid contents of the chamomile oil were calculated based on gallic acid and quercetin, respectively. The results show that the main component of the essential oil were Caryophyllene (7.45%), Bisabolol Oxide B (2.05%), Bisabolone Oxide A (62.35%), Chamazulene (2.05%), Bisabolol Oxide A (15.54%) and Methyl ester 5,8,11-Heptadecatriynoic acid (5.52%). Besides, total phenolic and flavonoid contents were $11.0043 \pm 0.4514$ and $2.7640 \pm 0.1776$ mg/l, respectively. Our results show that the historical dosage form of chamomile oil in Persian medicine can be reproduced and is an stable and homogeneous oil and be standardized in our investigation.

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