

Abstract

Introduction: Nowadays, the use of herbal teas has grown a lot, but most of the teas available in the stores are not checked in terms of quality control and the chemicals and harmful substances in them, and only non-standard product reaches the consumer's hand. So this study has been accomplished to produce standard herbal tea with standard laboratory methods.

Materials and Methods: After harvesting the product from the Ardabil University of Medical Sciences farm and drying *Echium amoenum*, extraction was done by maceration method, and then total phenol was measured by Folin Ciocalteu method, and flavonoids were measured by aluminum chloride calorimetry method. Total ash and insoluble ash were also obtained by burning the dried plant in a furnace and measured with a precise scale, and its active ingredients were analyzed using HPLC.

Results: According to the results of this study, the amount of total phenol was calculated as 79.794 ± 7.416 mg of gallic acid per gram of extract and the amount of total flavonoid was calculated as 0.13365 ± 0.0124 mg of quercetin per gram of extract. The amount of ash insoluble in acid was 1.0711% and total ash was 8.55%. Also, the amount of heavy metals was lower than the WHO guidelines (Hg:7ppb, As:27ppb, Pb:7/523ppb), and HPLC analysis confirmed the presence of the active ingredient rosmarinic acid, which was 5.56 ± 0.07 mg in the extract.

Discussion: Finally, the product was presented in the form of sachets and tea bags of borage flowers, and the product standardization details were presented in the form of a brochure with the product

Key words: herbal tea, *Echium. amoenum*, medicinal plants