Research in Pharmaceutical Sciences, 2012;7(5)
School of Pharmacy and Pharmaceutical Sciences
Isfahan University of Medical Sciences

Preparation and characterization of a herbal emulgel for treatment of varicose veins

F. Hosseini[1,*], J. Afshar[1], J. Shokri[2], F. Ghasemi[1]

[1]*Group of Pharmaceutical Hygienic &Food industries Dineh*

[2]*Department of Pharmaceutics, Faculty of Pharmacy, University of Tabriz, Tabriz, Iran*

Background and Aims: Varicose veins are part of continuum of circulatory disease which have been indicated with weakened, enlarged and twisted veins, that have symptoms like tiredness, heaviness, tension and edema (specially in legs). Emulgel (Emulsion in gel) has emerged as one of the useful semisolid drug systems as has been improved the stability of emulsion by incorporating in a gel matrix. The aim of this study was to achieve a suitable formulation of emulgel containing Horse chestnut and Calendula officinalis extracts for treatment of varicose veins.
Methods: Horse chestnut extract, which was purchased from Indian LEPRO Company, incorporated and standardized based on 10th German pharmacopeia (D.A.B.). Calendula extract was prepared based on BP method. Suitable oil in water emulsion base, Horse chestnut extract and gel phase were added to calendula extract to forming emulgel. Physicochemical tests such as creaming, coalescence, pH, centrifugal test, viscosity, spreadability, freezing and towing and content uniformity tests were performed.
Results: Results showed that appropriate amounts of sorbitan monostearate and gelling agent are the critical factors in stability of formulations. Most of formulations showed acceptable physical stability. Among physically stable formulations, one of them was selected as choice formulation based on results of all tests.
Conclusions: The results revealed that emulgel systems are a perfect choice for preparing topical cream especially containing herbal extract witch can interfere with simple emulsion systems.

Keywords: Varicose veins; Horse chestnut; *Calendula officina*lis