

## Novel Emulgel of Piroxicam for Topical Application with Mentha and Clove Oil

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**Abstract :** Emulgels have emerged as one of the most interesting topical delivery system as it has dual release control system that is gel and emulsion. The major objective behind this formulation is delivery of hydrophobic drugs to systemic circulation via skin. In fact presence of a gelling agent in water phase converts a classical emulsion in to emulgel. The emulgel for dermatological use has several favorable properties such as being thixotropic, greaseless, easily spreadable, easily removable, emollient, non-staining, water-soluble, longer shelf life, bio-friendly, transparent and pleasing appearance. Various penetration enhancers can potentiate the effect. So this can be used as better topical drug delivery systems over present conventional systems available in market. Piroxicam is a non-steroidal anti-inflammatory drug that has major problems when administered orally; it is an insoluble drug and has irritant effect on gastro intestinal tract lead to ulceration and bleeding. The aim of this study was to overcoming these problems through preparation of topical emulgel of this drug. Emulgel of Piroxicam was prepared using Carbopol 940 along with mentha oil and clove oil as permeation enhancer. The prepared emulgel were evaluated for their physical appearance, pH determination, viscosity, spreadability, in vitro drug release, ex vivo permeation studies. All the prepared formulations showed acceptable physical properties, homogeneity, consistency, spreadability, viscosity and pH value. The emulgel was found to be stable with respect to physical appearance, pH, rheological properties and drug content at all temperature and conditions for three month.

**Keywords :** emulgel, piroxicam, menthe oil, clove oil

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