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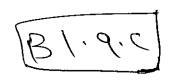
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PREPARATION AND EVALUATION OF FLUCONAZOLE IN MICROPARTICULATES FOR CONTROLLED RELEASE DRUG DELIVERY SYSTEMS

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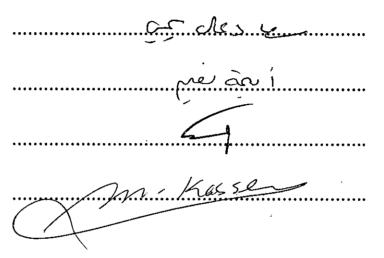
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ABSTRACT

The main objective of ophthalmic therapy is to provide and maintain an adequate concentration of the active ingredients at the site of action. The topical application of eye drops is a convenient and useful therapeutic method for the treatment of various ocular diseases, but suffers from generally a short duration of action. The other disadvantage of eye drops is the pulsed delivery of the drug.

To overcome these shortcomings, dosage forms such as ointments, intraocular injections and inserts were employed. Liposomes and niosomes with their ability to improve the bioavailability of various drugs have been applied recently in ophthalmic therapy.

An ideal ocular drug-delivery system should be able to control the delivery of drugs of varying physicochemical properties and provide sustained therapeutic action in the eye.

Vesicular systems were utilized for delivering drugs including lipid vesicles (liposomes) and nonionic surfactant vesicles (NSVs). The application of vesicular systems for therapeutic purposes may offer several advantages:

- The vesicle suspension being water-based offers high patient compliance in comparison with oily dosage forms.
- The vesicles allow the incorporation of hydrophilic, amphiphilic, and lipophilic drugs.
- The characteristics of the vesicles formulation are variable and controllable. The vesicle characteristics can be controlled by altering vesicle composition, size, lamellarity, trapped volume, surface charge and concentration.