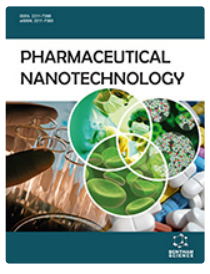

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Review Article

A Review on Polymeric Nanostructured Micelles for the Ocular Inflammation-Main Emphasis on Uveitis

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Abstract

Background: Various types of nano-formulations are being developed and tested for the delivery of the ocular drug. They also have anatomical and physiological limitations, such as tear turnover, nasal lachrymal waste, reflex squinting, and visual static and dynamic hindrances, which pose challenges and delay ocular drug permeation. As a result of these limitations, less than 5% of the dose can reach the ocular tissues.

Objective: The basic purpose of designing these formulations is that they provide prolonged retention for a longer period and can also increase the course time.

Methods: To address the aforementioned issues, many forms of polymeric micelles were developed. Direct dissolving, dialysis, oil-in-water emulsion, solvent evaporation, co-solvent evaporation, and freeze-drying are some of the methods used to make polymeric nano micelles.

Results: Their stability is also very good and also possesses reversible drug loading capacity. When the drug is given through the topical route, then it has very low ocular bioavailability.

Conclusion: The definition and preparation process of polymeric micelles and anti-inflammatory drugs used in uveitis and the relation between uveitis and micelles are illustrated in detail.

Keywords: Polymeric micelles, visual static, prolonged retention, reflex squinting, ocular drug permeation, course time.

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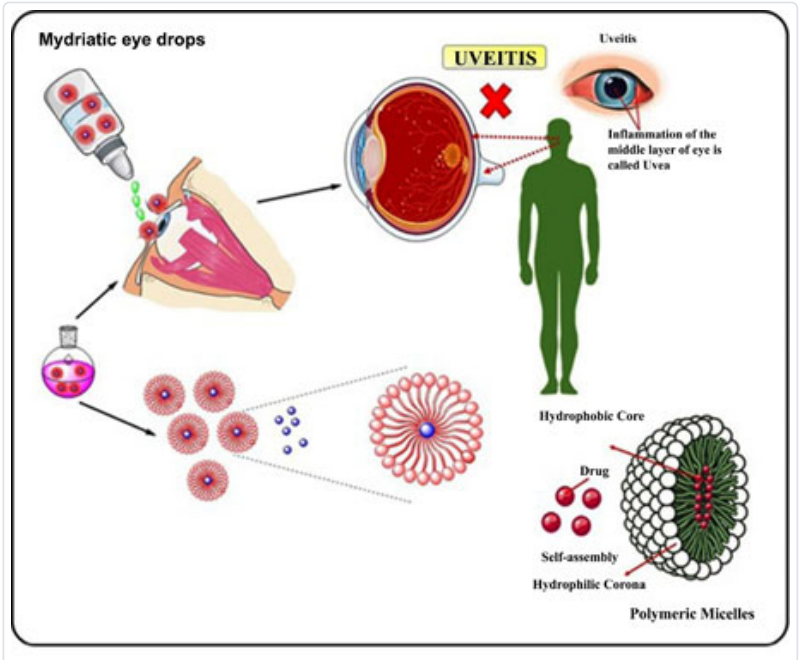
Graphical Abstract



Polymeric nanostructured micelleS for the ocular inflammation.

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