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Sustained Drug Release by contact lenses for Glaucoma

Treatment– a review

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Abstract

In the context of ocular pharmacology, there is a growing need for innovative delivery platforms for a convenient and sustained drug release into the eye, especially for chronic diseases that require the adoption of a strict insurmountable treatment regimen for a large part of the affected population, as in the case of glaucoma. Due to the large residence time of the contact lenses in the eye, its use for sustained drug delivery is quite promising. However, and despite the numerous therapeutic advantages arising from its use, the low affinity shown by most ophthalmic drugs for conventional contact lenses hinders the practical application of this technology. In this paper we elaborated a review of the various methods exploited so far to improve the contact lenses' characteristics as mechanisms for controlled and prolonged drug release for topical treatment of ocular diseases, with particular emphasis on the treatment of glaucoma.

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