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A Review on Current Perspectives and Recent Advances in Ocular Drug Delivery System

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Abstract: The pitch of ocular drug delivery is one of the most appealing and challenging endeavours faced by the pharmaceutical scientist for past 10- 20 years. In ophthalmic formulation for the eye; like solutions, suspensions, and ointments are available in the market show drawbacks such as increased precorneal elimination, blurred vision and high variability in effectiveness. Eye is most remarkable organ due to its drug disposition features. Ideal ocular drug delivery must be able to sustain the drug release and to remain in the vicinity of front of the eye for a prolonged period of time. Consequently it is imperative to optimize ocular drug delivery, one of the ways to do so is by addition of polymers of various grades, improvement of viscous gel, development of colloidal suspension or using erodible or non erodible insert to prolong the precorneal drug retention. Lastly understanding species anatomical differences is useful for interpreting toxicological and pathological responses to the eye and is significant for human risk assessment of these important new therapies for ocular diseases. "Ocular drug delivery is one of the most interesting and exigent endeavours facing the pharmaceutical scientist. The challenge to the formulator is to outwit the protective barriers of the eye without causing permanent tissue damage.

Keywords: Intravitreal, ocular drug delivery, ocular insert, subconjunctival.

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