



FORMULATION OF POLYMER GEL FOR OPHTHALMIC DRUG DELIVERY (NORFLOXACIN & LEVOFLOXACIN HEMIHYDRATE)

Satya Narayan Mishra¹, Dr. Manoj Kumar Mishra^{2*}, Dr. Anurag Mishra², Shubham Kushwaha¹,
Riya Singh¹, Mayank Kumar¹, Dheeraj Dubey³,

¹Shambhunath Institute of Pharmacy, Jhalwa, Prayagraj (U.P.)-India- 211012

²Department of Biochemistry, University of Allahabad, Prayagraj, (U.P.), India-211002

³Ashoka Institute of Technology and Management, Varanasi (U.P.), India- 22100 7

***Corresponding Author**

Dr. Manoj Kumar Mishra

¹Shambhunath Institute of Pharmacy, Jhalwa, Prayagraj, (U.P.), India-211002

Email- bmanojmishra@gmail.com, Contact- 953292359

Abstract

The formation and development of drug is done by naturally and synthetically. It was controlled by drug molecules by pharmacology effects. due to the arrival of low molecular weight of drug molecules the drug carrier system is more difficult. By the development of gel formulation this difficulty is overcome. The eye drops medicines cover 90 to 95% of medicines. The limitation and failure should be overcome by the new technology. there is different gelling technique is used for the formulation of drugs. eye drop is very simple to manufacture, sterilized and filtered. The purpose of the study is to develop a polymer gel for the treatment of ophthalmic. In which 3 different mechanism is use for the phase transition. Different parameter is for the formulation.

Keywords: norfloxacin, levofloxacin, ophthalmic drug delivery, polymer gel

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1. INTRODUCTION

The formation and development of drug is done by naturally and synthetically. It was controlled by drug molecules by pharmacology effects.^{1,2,3} due to the arrival of low molecular weight of drug molecules the drug carrier system is more difficult. By the development of gel formulation this difficulty is overcome. The eye drops medicines cover 90 to 95% of medicines. The limitation and failure should be overcome by the new technology.^{4,5,6} there are different gelling technique is used for the formulation of drugs. eye drop are very simple to manufacture, sterilized and filtered.^{7,8,9}

The sclera covers major surface of eyeball. limbus is connect with cornea and collagen fiber. It is of different size and presentation. The inner layer of the sclera is Lamina fusca.^{10,11} the oxygen is supply by cornea and the lacrimal fluid nutrients are by supply blood vessels. Collagen fibers made the Descemet's membrane. The single layer of flattened cells made the endothelium. It is connected by tight junctions.^{12,13} the middle portion is pupil. This is a circular hole in between the iris by which the light is passes through.^{15,16} the contraction and relaxation of muscle is altered by curvature.^{14,15} in human eyes the retina is situated in between the deep portion. It produces images. The nerve

