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(54) Title of the invention : FORMULATION AND OPTIMIZATION OF DELAYED RELEASE MICROSPHERES OF LORNOXICAM USING NATURAL AND SYNTHETIC POLYMERS

<p>(51) International classification :A61K0009500000, A61K0009000000, A61K0009160000, A61K0008730000, D01F0001100000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Mr. Ashwin Kumar Saxena Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code:244102 Moradabad -----</p> <p>2)Dr. Navneet Verma 3)Dr. Sushil Kumar Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Mr. Ashwin Kumar Saxena Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code:244102 Moradabad -----</p> <p>2)Dr. Navneet Verma Address of Applicant :Professor and Dean, Pharmacy Academy, IFTM University, Moradabad, Moradabad, Uttar Pradesh, Pin Code:244102 Moradabad -----</p> <p>3)Dr. Sushil Kumar Address of Applicant :Professor & Director, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----</p>
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(57) Abstract :

The present invention relates to the preparation and evaluation of lornoxicam loaded alginate-okra gum or ethyl cellulose microspheres. The microspheres were prepared by using sodium alginate with natural polymer and synthetic polymers in different ratios by Ca²⁺ induced ionic-gelation cross-linking. The formulations were optimized on the basis of drug release. The formulated microspheres were characterized for particle size, percentage drug entrapment efficiency, micromeritic properties, percentage swelling index and in-vitro drug release study. The microspheres exhibited good flow properties and also showed high percentage drug entrapment efficiency. In-vitro drug release data obtained were fitted to various release kinetic models to access the suitable mechanism of drug release. In conclusion, drug release over a period of time could be achieved from these prepared microspheres, and potentially used for intestinal drug delivery.

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