



Original Article

Gelatin beads as sustained release drug delivery system**Pathan Azhar Khan*¹, Shaikh Javed Ismail¹, Shaikh Rafik Gani¹**¹ Department of Quality Assurance, Allana College of Pharmacy, Azam Campus, Camp, Pune.**Abstract**

In the present context, an attempt to improve the performance of gelatin beads as sustained release drug delivery via the emulsion cross linking method, was undertaken. Hence, two types of polymers, gelatin (type B) and fish gelatin were used for the preparation of gelatin beads by Emulsion cross linking method. Gelatin (type B) as a polymer proved helpful during the process of formulation development. Drug excipient compatibility studied by IR spectroscopy and DSC confirmed no interaction between the drug and the excipient. Gelatin beads of Propranolol HCl were prepared by loading. The formulation was subjected to performance evaluation. Entrapment efficiency and %drug release of batches F1 to F9 were considered for the selection of optimized batch. Batch F9 was selected as it possessed the highest potential to release the drug gradually for more than 11hr with highest entrapment efficiency 92.38 ± 0.97 %. Gelatin beads were filled in hard gelatin capsules and subjected to evaluation. Accelerated stability studies were carried out.

Key words: Gelatin beads, Fish gelatin, propranolol HCl, sustained release drug delivery, emulsion cross linking method

***Corresponding Author: Pathan Azhar Khan**, Allana College of Pharmacy, Azam Campus, Camp, Pune. Mobile No. 9028536416. Email : pathanazherkhan@gmail.com