



Controlled Release Society Indian Chapter

One Day National Seminar on

Translational Research: From Bench to Bedside

Sunday, 17th November, 2019

SOUVENIR & ABSTRACT BOOK

Organized by -

All Pharmacy Colleges

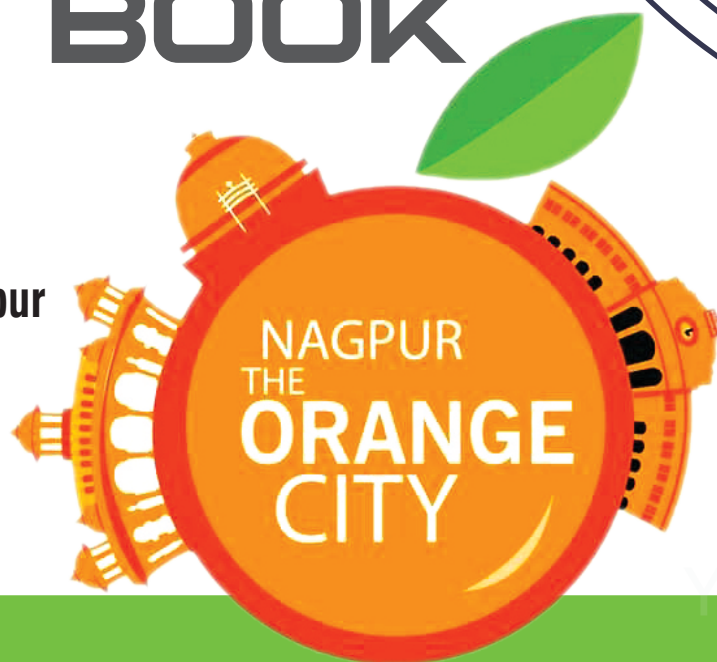
Affiliated to R.T.M. Nagpur University, Nagpur

Venue :

Hotel Tuli Imperial

Ramdaspath,

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SOUVENIR

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One Day National Seminar on

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FORMULATION AND EVALUATION OF CHRONOTHERAPEUTIC FLOATING BEADS FOR HYPERTENSION

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Abstract:

Aim: To formulate and evaluate chronotherapeutic floating beads for hypertension. **Objective:** To treat hypertension using chronotherapeutic floating beads and to control drug release with site specificity in the small intestine. **Methodology:** Floating beads for chronotherapy were formulated by simple ionotropic gelation method in which pectin and sodium alginate were used as matrix forming polymer and Sodium bicarbonate as floating agent. Carvedilol loaded floating beads were evaluated for particle size measurement, flow properties, % drug entrapment, floating study, dissolution study and stability study. **Results and Discussion:** The optimized formulation F1 was selected based on its good entrapment efficiency, less floating lag time and less drug release in 0.1 N HCl using 23 factorial design. F1 batch was found to have particle size 1.97 ± 0.09 mm, floating lag time of 1min, entrapment efficiency 89.41 ± 0.02 %, drug release 15.5 ± 0.1 % in 0.1N HCl and 90.5 ± 0.002 % in pH 6.8 phosphate buffer. Stability studies proved the stability of the formulation. **Conclusion:** Drug delivery of Carvedilol in the form of floating beads can be effectively used in chronotherapeutic management of hypertension giving site and time specific release of the drug.

Keywords

Floating beads, drug release, chronotherapy, ionotropic gelation, hypertension.

