



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

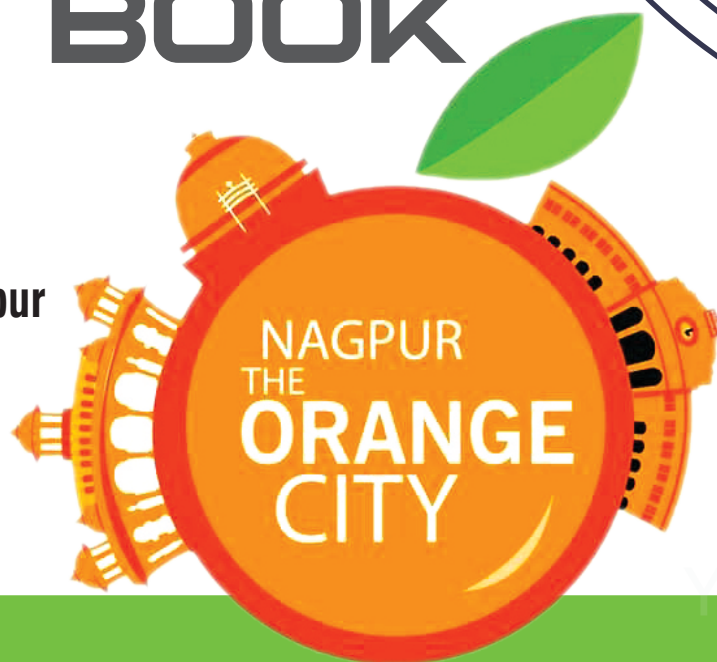
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Venue :

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Ramdaspath,

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TASTE MASKED FAST DISSOLVING TABLET OF ANTIMALARIAL DRUG FOR PEDIATRICS USE

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Abstract:

Aim and objectives: The aim of the present study was to mask the intensely bitter taste of Artemether (ART) & Lumefantrine (LUM) & to formulate a fast dissolving tablet (FDT) for pediatric use. **Methodology:** Taste masking of ART & LUM was done forming complex with beta-Cyclodextrine Complex by Kneading method & Solvent evaporation method respectively. The fast dissolving tablet of ART & LUM combination was developed using Sodium starch glycolate & Cross carmellose sodium both as superdisintegrants agents, Mannitol as a sweetener, Sodium lauryl sulphate as a surface active agent, Magnesium stearate as a lubricant & Citric acid as a flavoring agent by direct compression. Fourier transform infrared spectroscopy (FTIR), was performed to identify the physicochemical interaction between drug and carrier hence its effect on dissolution. Other evaluation parameters include taste evaluation, drug content determination, solubility, angle of repose, Carr's index, Hausner's ratio and dissolution studies. **Results and Discussions:** Fourier transform infrared spectroscopy (FTIR) of drug and beta-Cyclodextrine Complex showed compatibility. The optimized batch F3 has an angle of repose 19.45 ± 0.01 , Carr's index 11.36 ± 0.02 , Hausner's ratio 1.14 ± 0.01 , drug content 99.23 ± 0.01 %, drug release ART 97.11 ± 0.05 & LUM 95.90 ± 0.01 and taste masking (By in vitro drug release study) is achieved when in the early time points from 0 to 5 min, the drug substance in the dissolution medium is either not detected or amount is below the threshold for identifying its taste. Taste masking (By Taste perception test) 11 volunteers were selected; results showed that formulated tablet was taste masked successfully.

Keywords

Artemether; Lumefantrine, fast dissolving tablet, taste masking

