Taste Masking of Cefuroxime Axetil by Ion Exchange Resin Complex

Mangesh R. BHALEKAR*, Shital J. BIDKAR, Tushar K. SHETE & Ashwini R. MADGULKAR

Dept. of Pharmaceutics, AISSMS College of Pharmacy, Near R.T.O., Kennedy Road, Pune-400 001, Maharashtra, India

SUMMARY. The antibiotic cefuroxime axetil is extremely bitter. The present study deals with development of taste-masked resinates of cefuroxime axetil using ion exchange resins. The drug resin complexation procedure was optimized with respect to drug to resin ratio and pH of medium. Taste masked complex was characterized by FTIR, DSC and XRPD studies. In vitro release studies revealed complete drug release from the complex within 120 min in 0.1N HCl solution whereas less than 5% drug was released from taste masked complex in 60 sec in simulated salivary fluid (pH 6.2) which found to be insufficient to impart bitter taste. The taste-masked complex was then formulated into a suspension dosage form using sodium carboxymethyl cellulose as suspending agent. The suspension was evaluated for various quality control parameters and in vivo studies were carried out to check bioavailability of drug from suspension.

KEY WORDS: Cefuroxime axetil, Indion 214, ion exchange resin, Suspension, Taste masking.

* Author to whom correspondence should be addressed. E-mail: mrbhalekar@gmail.com