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## Design of taste masked enteric orodispersible tablets of diclofenac sodium by applying fluid bed coating technology

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**D**iclofenac sodium (DS) is a non-steroidal anti-inflammatory drug that has a bitter taste with local irritation to stomach. The aim of this research is to formulate taste masked DS orally dispersible tablets (ODTs) with drug release in the intestine. Pellets of DS were designed using sugar sphere cores layered with DS followed by enteric coat of Eudragit L100 and then a second coat of Eudragit E100 for taste masking. The produced pellets had high loading efficiency of 99.52 % with diameters ranged from 493.7 to 638.9  $\mu\text{m}$ . Pellets were spherical with smooth surfaces as examined by SEM. Pellets with 12 % enteric coated Eudragit L100 followed by 5% Eudragit E 100 showed  $1.4\pm 0.5\%$  DS release in simulated gastric fluid (SGF) while completely dissolved in simulated intestinal fluid (SIF). The pellets were used for formulation of ODTs. In vitro disintegration times of ODTs ranged between  $20\pm 0.26$  and  $46\pm 0.27$  sec in simulated saliva fluid (SSF). While, dissolution was less than 10% in SGF and all drug was released in SIF. The release rate was higher for the promising formulation (F12) in SIF compared with the marketed product voltaren® 25 mg. The optimized ODTs formulation had smoothness with highly acceptable taste.

### Biography

Hadyah Al-otaibi is a Pharmacist in Saudi Arabia. Her education at King Saud University.

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