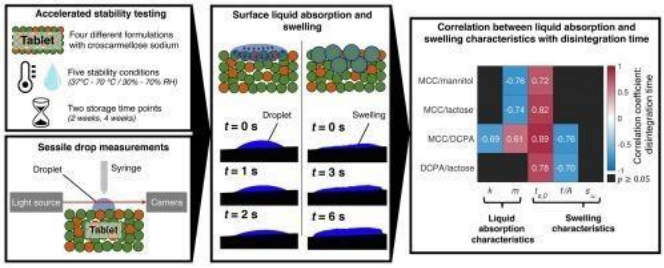
Fast disintegration tablets: Problems and Evaluation

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Abstract: responding to the present demand of the fast disintegration tablets, this study offers a trace-up analysis of the fast disintegration tablets to examine the ways of preparation and evaluation processes. It studies the short method to serve the patient who cannot swallow tablets for some reasons. The process of disintegration of pharmaceutical tablets is a crucial step in the oral delivery of a drug. Tablet disintegration does not only refer to the breakup of the inter-particle bonds, but also relates to the liquid absorption and swelling behaviour of the tablet.



The study shows the use of the sessile drop method, analyzing the surface liquid absorption and swelling kinetics of four filler combinations (microcrystalline cellulose (MCC)/mannitol, MCC/lactose, MCC/dibasic calcium phosphate anhydrous (DCPA) and DCPA/lactose) with croscarmellose sodium as a disintegrant. Changes in the disintegration performance of these formulations were investigated and analyzed by quantifying the effect of compression pressure and storage condition on characteristic liquid absorption and swelling parameters. The results indicate that the disintegration performance of the MCC/mannitol and MCC/lactose formulations are driven by the liquid absorption behaviour. For the MCC/DCPA formulation, both liquid absorption and swelling characteristics affect the disintegration time, whereas DCPA/lactose tablets is primarily controlled by swelling characteristics of the various excipients. The analytic approach in this study enables a rapid (<1 min) assessment of characteristic properties that are related to tablet disintegration to inform the design of the formulation, process settings and storage conditions.

Works Cited

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Short-Bio:

Nawaf Ali Musleh Saleem is a Yemeni scholar and has completed his bachelor of Pharmacy from Kakatiya University, India, He has worked on Formulation and Evaluation of Canaglifozin Sustain Release Matrix Tablets. He has many experiences in the field of pharmaceutical medicine.

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