

**FORMULATION AND EVALUATION OF ORODISPERSIBLE TABLET OF
HYDROXYZINE HYDROCHLORIDE BY USING NATURAL
SUPERDISINTEGRANT**

By

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Abstract:

The aim of present study is to formulate and evaluate the orodispersible tablets of Hydroxyzine hydrochloride using natural superdisintegrants. In this investigation orodispersible tablets were prepared using different superdisintegrants like banana powder, cassia tora powder and isabgol husk powder. The model drug chosen was hydroxyzine hydrochloride, for antihistaminic action. Hydroxyzine hydrochloride tablets were prepared using different concentration (1%, 2.5%, 5%, 7.5%, 10%) of superdisintegrant by the direct compression method. The solid state property of orodispersible tablet powder blend was characterized by Fourier transform infrared spectroscopy (FTIR) studies of hydroxyzine hydrochloride and mixture of all excipient were confirmed that the drug was pure and there is no chemical interaction between drug with all excipients. The prepared orodispersible tablets were evaluated for various parameters for Precompression as well as post compression such as drug content, hardness, friability and disintegration time. Among all the formulations, Batch F4 containing ratio of cassia tora and Isabgol powder (7.5% and 5%w/w) of natural superdisintegrant showed good wetting time and disintegrating time as compared all other formulation. The lowest disintegration time was found with the batch F4. Thus, Batch F4 optimized as final formulation. The tablets were found to be stable during the accelerated stability studies conducted for one month of duration at $40 \pm 2^{\circ}\text{C}$ and $75 \pm 5\%$ R.H.

Keywords:

Hydroxyzine HCL, Orodispersible tablet, Natural superdisintegrants, Banana powder, Cassia tora powder, Isabgol powder and Disintegration time.