ABSTRACT

EFFECT OF DISINTEGRANT POLYPLASDONE XL-10 5% AND 10% ON THE PHYSICAL CHARACTERISTICS AND DISSOLUTION OF PARACETAMOL ORALLY DISINTEGRATING TABLET WITH GELATIN 2% AS BINDER (Prepared with Mannitol Base using Freeze Drying Method)

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Orally Disintegrating Tablet is a tablet that can be rapidly disintegrated in saliva less than a minute. The aim of this research was to determine the effect of varying concentrations of polyplasdone XL-10 on the physical characteristics and dissolution of paracetamol orally disintegrating tablet. Freeze drying method was chosen because it can formed a porous structure that facilitates the penetration of water into the matrix beside the using of superdisintegrant polyplasdone XL-10 in various concentration.

Tablets were evaluated for hardness, friability, in vitro disintegration time, dissolution, and content uniformity. The results showed that higher levels of polyplasdone XL-10 will significantly increase the hardness, reduce the friability and accelerated the disintegration time of the tablets. All of the formula had disintegration time less than 1 minute. The increasing concentration of polyplasdone XL-10 was not significantly effect to ED$_{30}$.

Keyword: paracetamol, orally disintegrating tablet, polyplasdone XL-10, physical characteristics, dissolution