# ABSTRACT

**The Influence of the Polivinil pirolidone K-30 Concentration on Ketoprofen Release from Sustained Release Tablets with Matrix Hidroxypropyl Methylcellulose K100M**

A study to investigate the effect of Polivinil pirolidone (PVP K-30) as a channeling agent on ketoprofen release from sustained release tablets with Hidroxypropyl Methylcellulose K100M as a matrix was carried out. The tablets with various concentration of PVP K-30 5 %, 7,5 % and 10 % were prepared by wet granulation method. The tablet were evaluated for physical characteristics including hardness, friability value and in vitro release of drug. The amount of drug release from tablet into dissolution medium was assayed by spectrophotometer UV. Dissolution test were carried out in dissolution medium which pH 6,8 at temperature 37 ± 0,5 °C, the result is analysed by statistics programme of SPSS using one way analysis of variance in 95% confidence interval.

The values of the drug released from tablets were plotted in graphs of drug released versus time. For elucidation of the drug kinetics, dissolution data were analyzed using zero order, first order, and Higuchi equations, with linear regression. Whereas the drug mechanism, dissolution data were analyzed using power law equation.

The result showed the ketoprofen of the matrix tablet followed first order for FI, and FII, and for FIII, and FIV followed zero order. And the mechanisms release were a non Fickian diffusional. The addition of PVP K-30 on different concentrations at FII, FIII, and FIV increased the release of ketoprofen. The addition of PVP K-30 not meet to the criteria of ketoprofen release of sustained release drug that stated in Welling's criteria.

**Key words :** Ketoprofen, Hidroxypropyl Methylcellulose K100M, Polivinil Pirolidone K-30, Sustained Release.