ABSTRACT

Diploma thesis deals with information about sublingual administration of drugs in the first part. In the context with the tested permeant briefly describes individual vitamins groups. In the second part more specifically describes folic acid in the vitamin function and possible use in prevention of the congenital evolution defects and its protective effect on the cardiovascular system.

Experimental part is aimed at caffeine permeation as a marker and folic acid as model drug over sublingual membrane non-trypsinized-frozen or trypsinized. As one of the main results it can be considered measuring of the values of folic acid permeation and the effect of used type of sublingual membrane.

It is possible to consider measuring of the value folic acid flux values from dispersion vehicles EM1 and EM2 to be one the second main results.

In dispersion vehicle EM1 was value for sublingual non-trypsinized membrane \( J = 0.6 \ [\mu g /cm^2 \cdot h^{-1}] \pm 0.4 \) and for sublingual trypsinized membrane was \( J = 0.5 \ [\mu g /cm^2 \cdot h^{-1}] \pm 0.2 \). For dispersion vehicle EM2 sublingual non-trypsinized membrane has value \( J = 0.3 \ [\mu g /cm^2 \cdot h^{-1}] \pm 0.2 \) and for sublingual trypsinized membrane the same. This flux value compared with simple liquid vehicle (e.g. IPM) is low. This implies significant retardation effect of the dispersion systems. This fact makes possible to use the formulation for reduction of sublingual drugs side effects.