

ABSTRACT

The theoretical part has mentioned the basic information about pain and its treatment. Furthermore, there are described analgesics, mainly opioids. This part is specifically focused on the kinetics and pharmacodynamics of butorphanol alone. A following section deals with the basic description of sublingual administration and it provides with a description of morphology of tongue and also provides information from articles, which dealt with a similar theme as this thesis.

The experimental part focuses on the permeability of a sublingual membrane using butorphanol dispersed in different vehicles. Isopropyl myristate, phosphate buffer pH 5.3, propylene glycol – water (3:2) were used. Some of the test donor samples used gelatinous membrane or chitosan donor membrane. Acceptor phase in the experiments was phosphate buffer pH 7.4 or pH 6.5. Permeation marker there was caffeine.

I have found from the permeation results obtained that caffeine as a marker of choice was appropriate.

Permeability tests of butorphanol brought some interesting findings on the dependence between permeability and a selected membrane type. It can be concluded from the results that the membrane permeability of the membrane affected by membrane properties more than the used vehicle.