ABSTRACT

The diploma thesis deals with the synthesis of conjugates of the antitumor drug 5-fluorouracil with cyclodextrins. Cyclodextrins are connected to the drug by linkers of different lengths, which are unstable in an acidic environment and therefore expected to release the drug in the vicinity of tumor cells. Cyclodextrins serve as a delivery carrier of the mentioned cancerostatic, which complexes the drug and increases its solubility, stability, and bioavailability.

Several synthetic procedures were proposed to obtain suitable conjugates for this purpose. As a part of this work, a total of 12 conjugates of fluorouracil with α-, β- and γ-cyclodextrins were prepared and characterized.

Keywords: cyclodextrin, drug, conjugate