IDENTIFICATION TUSUPREKSA BU CHROMATOGRAPHY IN THIN LAYERS OF SORBENT

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Introduction. Tusuprex (Oxeladin) – citrate α, α – dietilaminoetoksietil-phenylacetic acid - antitussive drug used in medicine and in the treatment of bronchitis, tracheitis, acute stage proceeding in a dry cough. Compared with codeine tusupreks has a softer effect, does not inhibit breathing, does not cause drug dependence and addiction, so after a long phasing out its use is not required. Application tusupreksa with hypnotics and sedatives may enhance their effect. This drug is of interest in chemical-toxicological respect.

Aim. Our aim is to develop tusupreksa detection conditions in the presence of other drugs that have similar pharmacological action, by chromatography sorbent in thin layers (TLC).

Materials and methods. We used glass plates for high performance thin layer chromatography (HPTLC, silica KSKG fraction 5:20 mkm, thickness of 130±25 mkm), Sorbfil plate (silicagel SLC-IA, fraction 5:17 mkm), glass plates from Merck (Germany) (silicagel GF-254) solvent system movable acidic, neutral and alkaline character.

Results and discussion. The most optimal mobile solvent systems for identification are tusupreksa system: methanol – ammonia (100:1.5), (R_f = 0.44), 1-butanol - acetic acid - water (66:17:17) (R_f = 0.54), hexane - toluene - diethylamine (75:15:10) (R_f = 0.55), toluene - ethylacetate - diethylamine (30: 20: 1.5) (R_f = 0.59). We investigated the possibility of separating tusupreksa with other drugs with similar effects. The separation achieved in the systems methanol – ammonia (100:1.5), ethylacetate - methanol - diethylamine (30:20:1.5). To display tusupreksa in thin layers of sorbent used various developers. It is set at a number of developers: bromophenol blue, iodine vapors, reagent Dragendorff in various modifications. Most sensitive is the Dragendorff reagent, whereby 0.1 mkg of the drug in the sample was detected.

Conclusions. The research results can be used during the chemical-toxicological analysis tusupreks.