observed in 1 h, the full release – in 2 and 4 hr. At the same time, with lengthening of sorption to 4-6 hr, the substance is detected in the sample solution after 6 hr of the desorption process yet. It due to the fact that only the surface binding of sulfacetamide to the lens occurs after 1 h of sorption, this bond becomes stronger in the time following, it increases the release time. In addition, the determining factors of the degree of sorption and desorption are the penetration ability of a substance, its affinity for contact lens monomers, as well as water condition and quantity in the hydrogel. The addition of hyaluronic acid provides a prolonged release effect. Sulfacetamide is detected in the solution after an 8-hour desorption even, the desorption peak is observed in 4 hr, approximately equal amount of the substance is released further. It should be noted that the concentration of the released substance increases with increasing hyaluronic acid concentration in the system, while the uniformity of release remains the same.

Conclusions. The evidence from analysis indicates the prospects of using soft contact lens as ophthalmic drug delivery system. Hyaluronic acid use ensures the prolongation and uniformity of the release of the active substance from soft contact lenses.

CHOICE OF BASIS FOR MEDICINAL SYRUP FOR VISION IMPROVEMENT

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Introduction. Statistics argue that a problem with vision has every fifth inhabitant of the globe – almost 1.5 billion people. An interesting fact is that most people with such a diagnosis live in developed countries. If vision begins to worsen, there is nearsightedness or farsightedness.

Aim of the study. The purpose of our work is to develop the composition and technology of medicinal syrup for vision improvement. Four samples of medicinal syrup were obtained for the study. Glucose (sample number 1), fructose (sample number 2), xylitol (sample number 3) and sorbitol (sample number 4) were used as the basis for syrups. To increase the viscosity of the syrup, xanthan gum was introduced.

Materials and methods. The corrective potential of sweeteners in the syrup was studied by the method of OI. Tentsova. Two groups of tasters (selected in expert form), adhering to all rules of tasting, evaluated the taste of the dosage forms with and without a flavour. The first group of tasters assessed the taste according to the emotional sensation on a 5-point scale: very nice – 5; nice – 4; not bad – 3; bad – 2; very bad – 1. The second group of tasters conducted an organoleptic assessment of the basic taste of the same samples also on the 5-point system: not bitter – 5; not very bitter – 4; slightly bitter – 3; bitter – 2; very bitter – 1. The estimates of both groups were summarized in the general table and a numerical index of the basic taste has been derived. The indices were displayed as the arithmetic mean of all metrics. The higher the taste index corresponds to the higher corrective potential of sweetening agents. The double estimation of the corrective potential of masking substances ensures the objectivity and reliability of the method. The bitter, burning taste of the water extract was masked with sweeteners selected by determining the corrective potential in relation to the basic taste and taste sensations in relation to the taste of the water extract, taken as a standard bitter taste.

Results. In assessing the taste characteristics of the model samples of syrups, it has been found that all experimental samples have a characteristic specific odour.. Sorbitol-based syrup has optimum taste indicators and high value of the numerical index-4.6

Conclusion. The conducted studies have shown that the most promising for further development of the composition and technology of medicinal syrup for use in ophthalmology is the sample number 4 containing sorbitol solution as a base.