*vivo*експериментальні тварини (миші) імунізували овальбуміном за присутності клиноптинолітів, які слугували ад'ювантами. Усі маніпуляції з тваринами проводили відповідно до рішення біоетичної комісії та згідно з положеннями «Європейської конвенції про захист хребетних тварин, що використовуються для дослідних та інших наукових цілей» (Страсбург, 1986), та Закону України «Про захист тварин від жорстокого поводження».

Вміст утворених антитіл до овальбуміну в сироватці крові мишей після імунізації визначали за допомогою імуноферментного аналізу. При цьому не виявлено значних відмінностей у розвитку імунної відповіді за дії як інтактного, так і збагаченого сріблом клиноптилоліту. Вміст антитіл за дії різних зразків клиноптилоліту був близьким до такого вмісту за дії традиційного ад'юванта – алюміній гідроксиду, який використовували як позитивний контроль. Отже, збагачений сріблом клиноптилоліт проявляє цитотоксичний ефект на імунні клітини *in vitro* і викликає слабку імунну відповідь *in vivo*. Дослідження імуноад'ювантних властивостей клиноптилоліту продовжується.

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MANOSE- AND SIALOSPECIFIC LECTINES AS MARKERS OF THE INFLAMMATORY PROCESS

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Most human proteins are modified by the covalent addition of complex oligosaccharides - glycans. The carbohydrate part of the protein affects their structure and function. Due to differences in the nature of changes in glycoforms of glycoproteins depending on the type and stage of a particular pathological process, there are new approaches to the differential diagnosis of diseases, which are based on their detection.The study of glycosylation processes and elucidation of the causes of their violation allows us to judge not only the morphology and degree of differentiation of immunocompetent cells, but also the level of their functional activity and ability to migrate, and therefore the immunological resistance of the organism as a whole severity. Lectins, proteins that specifically interact with certain carbohydrate sequences, recognizing not only their monomer composition but also their spatial configuration, are today an accessible and effective research tool.

The aim of the study was to compare the number of lymphocytes in the blood that contain glycans on their surface in different diseases. The object of the study were blood lymphocytes of patients with chronic lymphocytic leukemia (CLL) (n = 10) and liver disease (n = 10). The control group consisted of 10 relatively healthy donors. The number of glycosylated blood cells was determined by flow cytofluorimetry using fluorescein isothiocyanate-conjugated (FITC) lectins of different specificity. Studies of terminal residues of N-acetylneuraminic acid were performed using lectins - Sambucus nigra (SNA), which is affine to α (2 → 6) - bonds of N-glycans, as mannose-

specific lectin used Canavalia ensiformis (ConA). The analysis was performed on a flow cytometer Soulter Epics XL. The calculation of changes in exposure density was performed in accordance with the program FCS Express 3. All subjects gave written consent to participate in the study.

The study showed a change in the degree of glycosylation of lymphocytes depending on the development of the pathological process and the set of lectins used. So when using sialospecific lectin SNA shows an increase in the number of lymphocytes that carry on their surfaces residues of N-acetylneuraminic acid in 10 times the CLL compared to normal. The opposite results were obtained using this lectin in a study in patients with liver disease, namely a reduction of 5 times compared to normal. Regarding the use of lectin Canavalia ensiformis, the following data were obtained: an increase in the number of splinters on the surface of lymphocytes by CLL 2.2 times compared to normal, and no difference in normal and the development of inflammatory processes in the liver.

The obtained results and literature data suggest that the development of the pathological process causes a change in the degree of glycosylation of the lymphocyte membrane and depends on the type of pathological process. The study of glycosylation processes and identifying the causes of their violation is of considerable interest for deciphering the mechanisms of various pathological conditions, their diagnosis and effectiveness of treatment.