

a new patients only with a acute form registered in is the world annually, 600 thousands die from the disease.

**The purpose** of our work was a search of prognostic criteria of unfavourable course of patients with acute hepatitis B.

**Materials and methods.** 29 patients with acute hepatitis B were investigated. Patients were distributed on groups: to the first group patients which a favourable course of disease - convalescence was in were taken (consist form 24 persons); in the second group were 5 patients with acute hepatitis B, with an unfavourable course of disease (lethal cases). With the purpose of search of prognostic indexes of course of disease all biochemical indexes were analysed, (sublimite test, thymol test, ALT, general bilirubin level, bilirubin direct and indirect fractions, erythrocytes, haemoglobin, coloured index, leucocytes, eosinophil, bend and segment neutrophil, lymphocytes, monocytes, ESR, prothrombin index, fibrin, fibrinogen level), were investigated with the use of method of dendrograms (decision trees), which is one of the most modern methods of prognosis and decision of tasks of classification. Principle of work and basic features of algorithm of CART was used in this work.

**Results** and their discussions. Biochemical indexes were investigated at the day of admission of a patient. For of classification there were only two criteria are reflected - level of general bilirubin and leucocytes - as a numeral design showed, application of other criteria showed did not increase value of prognosis. Thus, it is discovered that level of general bilirubin 312 mkm/l and higher in the serum of blood in patients with acute hepatitis B and level of leucocytes in the general analysis of blood of  $12,6 \times 10^9$  and higher reflects possibility of development of unfavourable course of disease. A discriminative analysis was farther conducted in relation to indexes that were found. It is possible to see, that all of patients were right prognostic interpreted to the patients with favourable and unfavourable course of disease. It is possible to see from the conducted canonical analysis, that both criteria approximately identically influence on exactness of prognosis (96,5%).

**Conclusions.** Content of general bilirubin 312 mkm/l and higher and level of leucocytes in the general blood analysis of  $12,6 \times 10^9$  in the serum of blood of patients with acute hepatitis B is expedient to take into account at prognosis of unfavourable course of the disease.

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#### **DETERMINATION OF CYTOKINE PROFILE IN THE SERUM OF HIV-INFECTED PATIENTS**

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**Purpose of work** - study of cytokines in the serum of HIV-infected patients. Serum 72 HIV-infected patients was determined by the content of pro-inflammatory cytokines - tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ), interleukin-1 $\beta$  (IL-1 $\beta$ ), IL-2, IL-6, IL-8 and anti-inflammatory IL-10 by ELISA.



**Results.** 20 (27.8%) HIV-infected patients had 1 and 2 clinical stage of the disease, 32 (44.4%) patients - 3 in 18 (25%) patients - 4, respectively. Analyzing the data content of cytokines in the serum of HIV-infected persons in relation to the clinical stage of the disease showed an increased in the pro-inflammatory (IL-2 and IL-8) and anti-inflammatory (IL-10) cytokines in patients with 1 and 2 clinical stages of the disease. In patients with 3 clinical stage of the disease there is a significant increase in IL-8 ( $p < 0.05$ ) compared with patients 1 and 2 clinical stages of the disease. In addition, the three patients with clinical stage of the disease is determined by the increase in TNF- $\alpha$  and IL-10. The content of other interleukins in the serum of HIV-infected patients with clinical stage 3 was very low. In HIV-infected patients with 4 clinical stage of the disease is observed inhibition of the content of pro-inflammatory and anti-inflammatory interleukins in the blood serum.

**Conclusions.** Thus, in HIV-infected patients with significant violations concern of IL-8, IL-1 $\beta$ , IL-2 and TNF- $\alpha$ , indicating a significant impairment of immunity in the form of a sharp weakening of the inflammatory potential. Along with the deepening of immune inhibition of pro-inflammatory cytokines (TNF, IL-1 $\beta$ , IL-2, IL-6, IL-8) against the background of the potential depletion of anti-inflammatory cytokines (IL-10), which indicates decompensation regulatory mechanisms of the inflammatory process in the patients. Thus, analyzing the performance of cytokines in HIV infection, it can be concluded that they are losing a compensatory character, which leads to an imbalance between the productions of cytokines.

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### **MESOTHERAPY IN THE TREATMENT OF VARIOUS TYPES OF SCARS**

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**Introduction.** Skin scarring occurs in more than one hundred million people in the developed world per year. Not only a cosmetic problem, scars can also affect one's psychological state, reducing the patient's quality of life and social adaptation. A scar forms when connective tissue replaces damaged tissue. Surgery and various traumatic factors (mechanical, thermal, chemical, ionizing radiation, deep destructive inflammation) can lead to scarring.

The search for new, modern and efficient techniques for scar correction is an issue in modern cosmetology. One of the most effective methods available for scar correction is mesotherapy. Mesotherapy is a technique that utilizes the locoregional correction of pathological changes in the skin. The procedure works by injecting medical drugs and cosmetic products into the dermis. Mesotherapy is widely used in the treatment of a number of pathological changes in the skin: acne, hyper and hypopigmentation of the skin, warts, rosacea, telangiectasia, trophic ulcers, xanthoma, obesity, cellulite, scars, age-related skin changes, post-cosmetic surgery, chemical peels and laser resurfacing.