**O.P.Shevchenko**

State institution "Dnipropetrovsk medical academy of the Ministry of Health of Ukraine"

**Key words:** chronic hepatitis, pathogenetic treatment, Arginine glutamate, Cytoflavin.

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# PATHOMORPHOLOGICAL CHANGES IN RATS WITH EXPERIMENTAL MODELS OF CHRONIC VIRAL HEPATITIS

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**ABSTRACT. Background.** The research was focused on progressive excessive formation of connective tissue subsequently leading to architectural changes of the liver tissue. Justification of drug choices is based on their possibility to modulate regression of fibrosis and resorption of connective tissue. **Objective.** To study the anti-fibrotic properties of pharmaceuticals Arginine glutamate (Glutargin) and complex drug Cytoflavin in the liver of rats with the experimental model of induced chronic hepatitis. **Methods.** Experimental studies have been conducted on adult male Wistar rats. Chronic hepatitis was induced in laboratory animals by Nikolenko V.U. et al. (2006). The model is based on toxic damage of hepatocytes with carbon tetrachloride and formation of autoimmune response. Ant-fibrotic effect of Arginine glutamate and combined metabolic drug Cytoflavin were studied. Histological specimens were stained with haematoxylin, eosin, alcian blue (sialylated glycocalyx of cells) and picrofuchsin by Van Gieson (to identify the connective tissue of the liver), histochemical PAS-reaction with Schiff's reagent to detect glycogen. **Results and conclusion.** The article studied pathological changes in rats with experimental model of chronic viral hepatitis during treatment with pathogenetic drugs, namely, Arginine glutamate (hepatoprotector Glutargin) and metabolic product (combination drug) Cytoflavin to study their impact on the process of fibrogenesis in the liver. **Conclusion.** In animal model of induced chronic hepatitis the greatest clinical efficacy was shown for Arginine glutamate, its application showed greater slowdown in the processes of fibrosis comparing with Cytoflavin.


✉ **dsmainfect@ukr.net**

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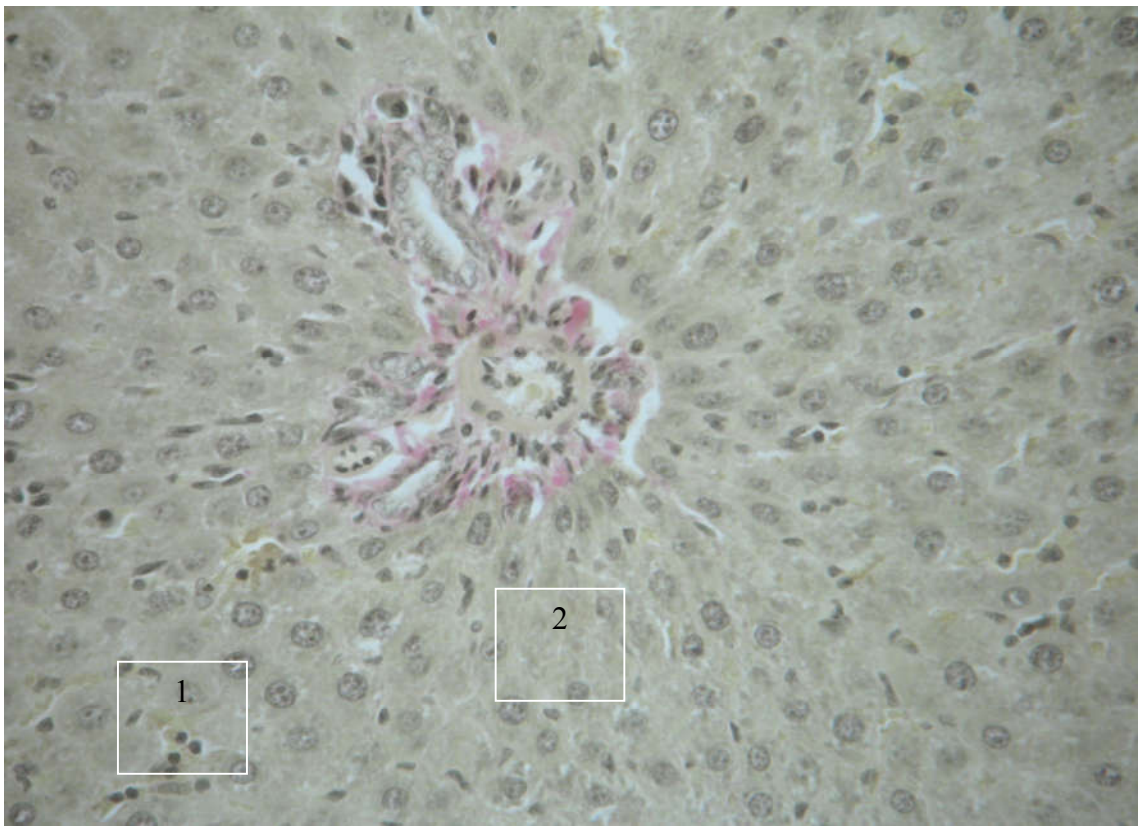


Fig. 1. Morphological changes in group 2 rat. Lymphocytic infiltration, fibrous cords, cytoplasmic protein dystrophy, necrosis; 1 – lymphoid infiltration; 2 – cytoplasmic protein dystrophy, ‘empty’ cytoplasm, necrosis. Van Gieson stain. ×400.

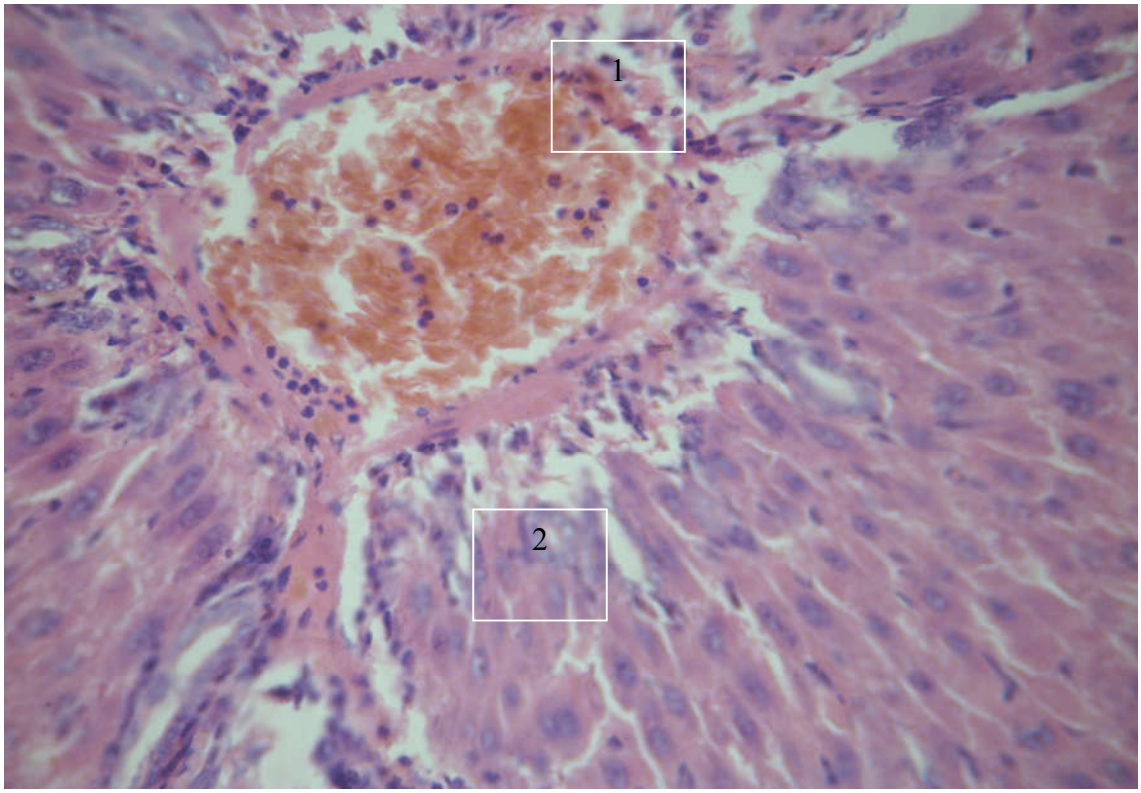


Fig. 2. Morphological changes in group 2 rat. Lymphocytic infiltration, central vein fibrosis, fibrous cords, cytoplasmic prot ein dystrophy, necrosis, ductular proliferation; 1 –– lymphoid infiltration; 2 – ductular proliferation. Hematoxylin&Eosin stain. ×400.

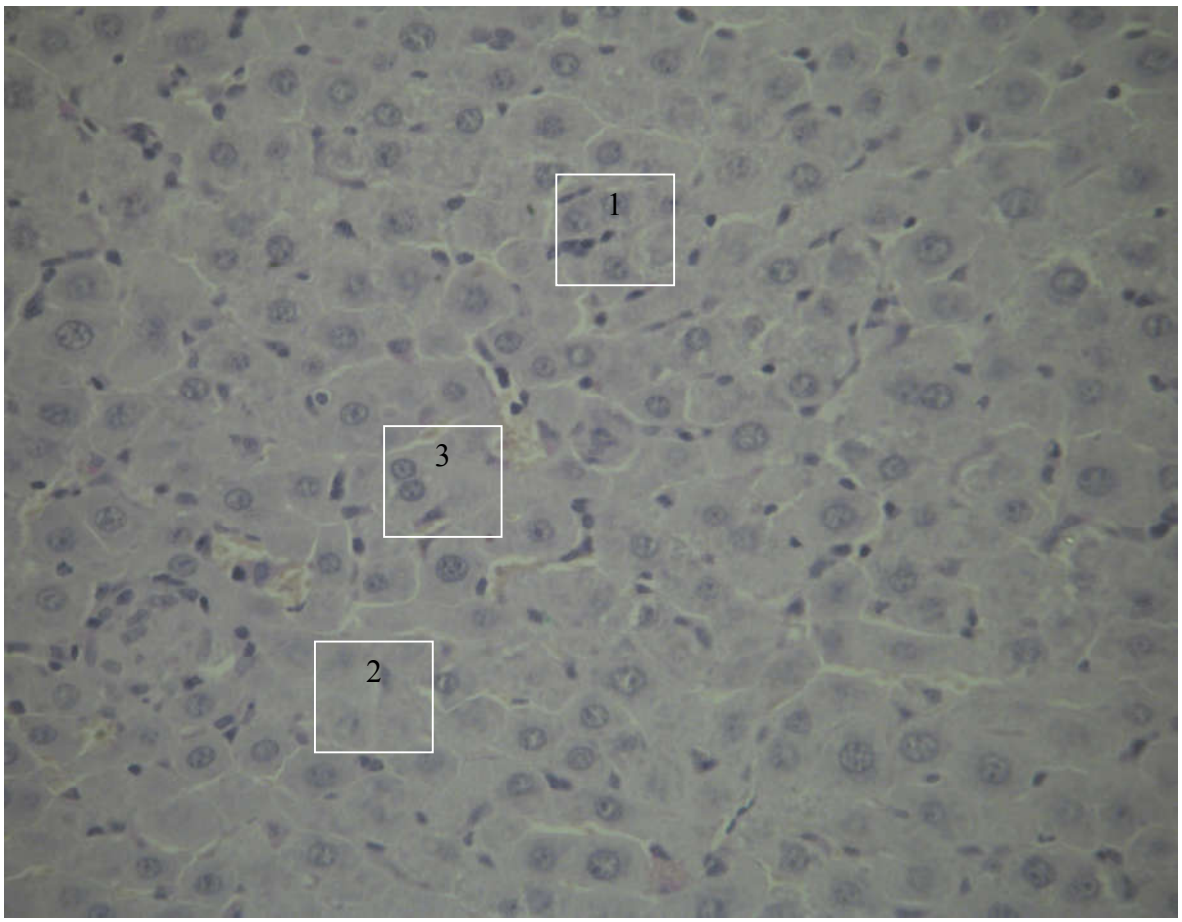


Fig. 3. Morphological changes in group 3 rat receiving L-Arginine L-glutamate. Lymphocytic infiltration, cytoplasmic prot ein dystrophy, 'empty' cytoplasm; 1 –– lymphoid infiltration; 2 – cytoplasmic protein dystrophy, 'empty' cytoplasm; 3 – binuclear hepatocytes. Periodic acid–Schiff stain. ×400.

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