



Ukrainian medical stomatological academy

THE USE OF TORASEMIDE AS A STRESS PROTECTOR IN MORPHOLOGICAL RESEARCH OF HEPATIC REACTION

Torubara O.O. Kyslyy V.F.



Introduction:

Nowadays the negative impact of stress factors on the liver is well-studied and substantiated. However, this issue remains open and priority for medicine, particular attention being paid to the stress protective effect of torasemide saluretics.

Aim:

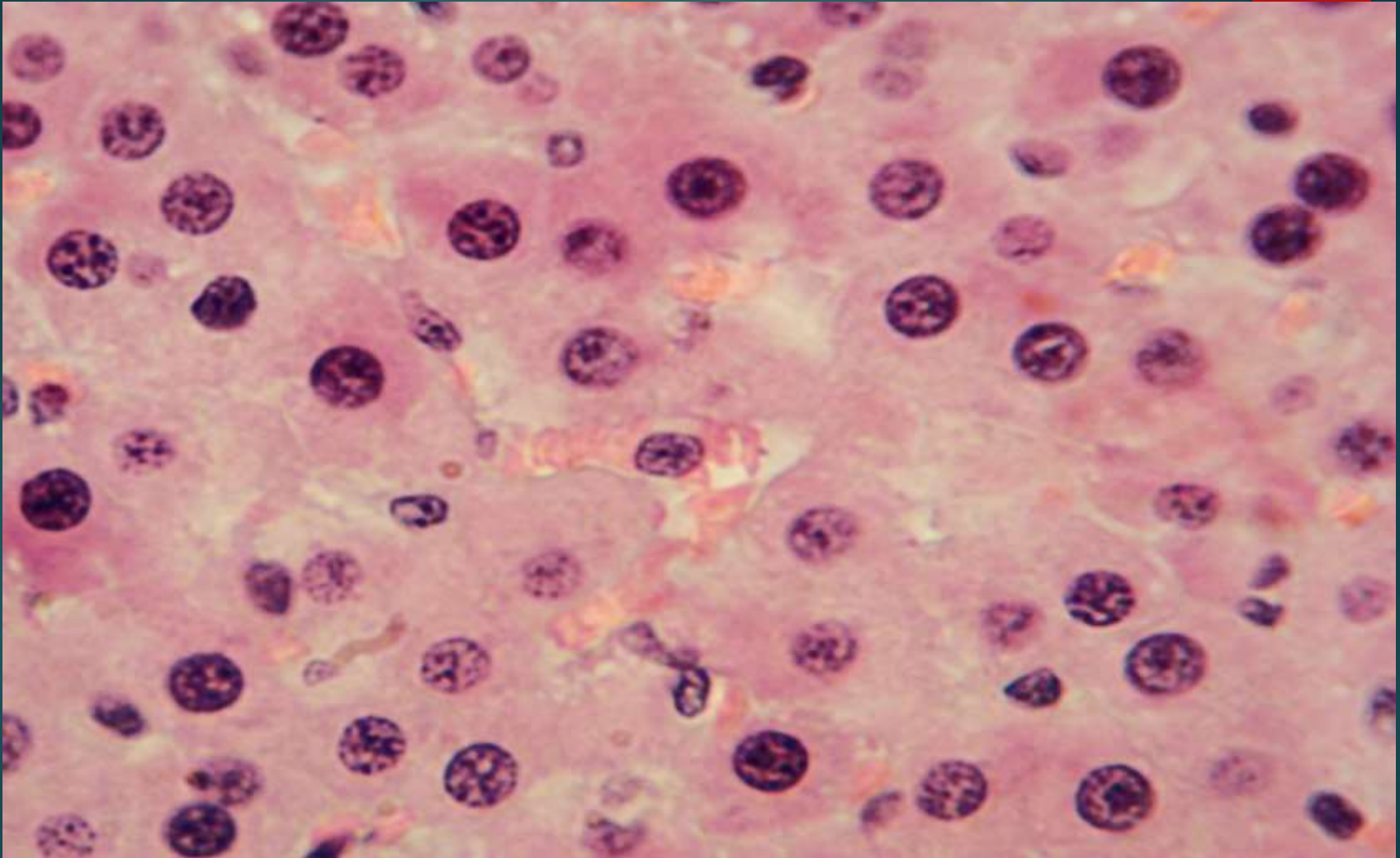
To prove at the morphological level the effectiveness of using torasemide to correct changes that occur in the tissues of liver of white rats under the influence of acute immobilization stress.

Materials and methods:

The research was performed on 15 white rats (males), their age ranged from 9 to 10 months, body weight 230-250 grams. The I intact group consisted of 5 animals, the II control group also consisted of 5 animals, which were affected by acute immobilization stress. Group III in the number of 5 white rats stress condition was adjusted by torasemide. A model of acute immobilization stress was reproduced by a six-hour fixation of white rats in the supine position. White rats were administered intraperitoneally with a torasemide dose of 0.1 mg once to correct stress 20 minutes before the time of fixation. As a result of the opening of the abdominal cavity, a macroscopic examination of the liver was performed, as well as the collection of material for microscopic examination.

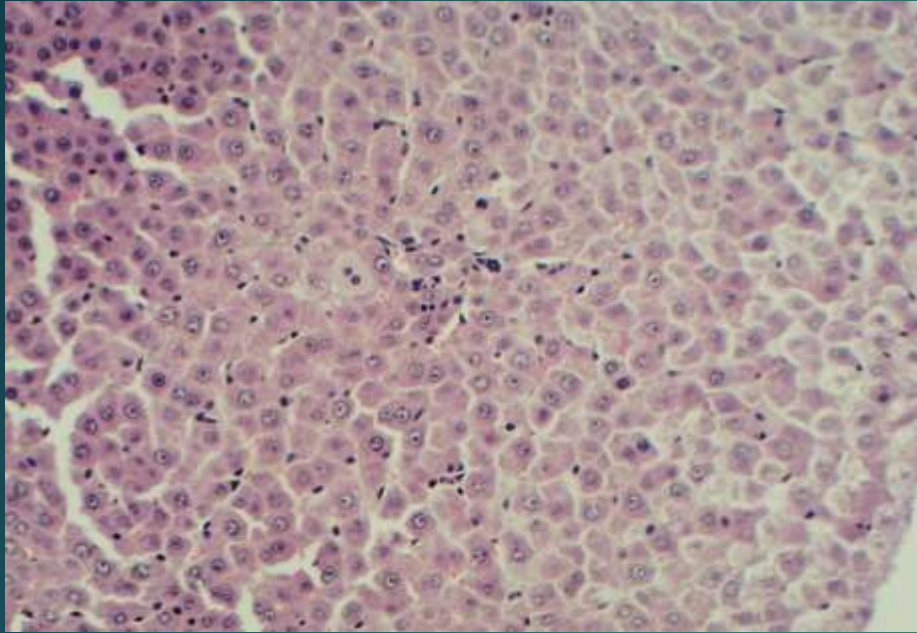
The experimental part of the study was conducted in accordance with the requirements of the international principles of the "European Convention for the Protection of Vertebrate Animals Used in Experiment and Other Scientific Purposes" (Strasbourg, 1985) and the relevant law of Ukraine "On the Protection of Animals against Cruelty" (No. 3446-IV

Rat liver after reproduction of an experimental model of acute immobilization stress

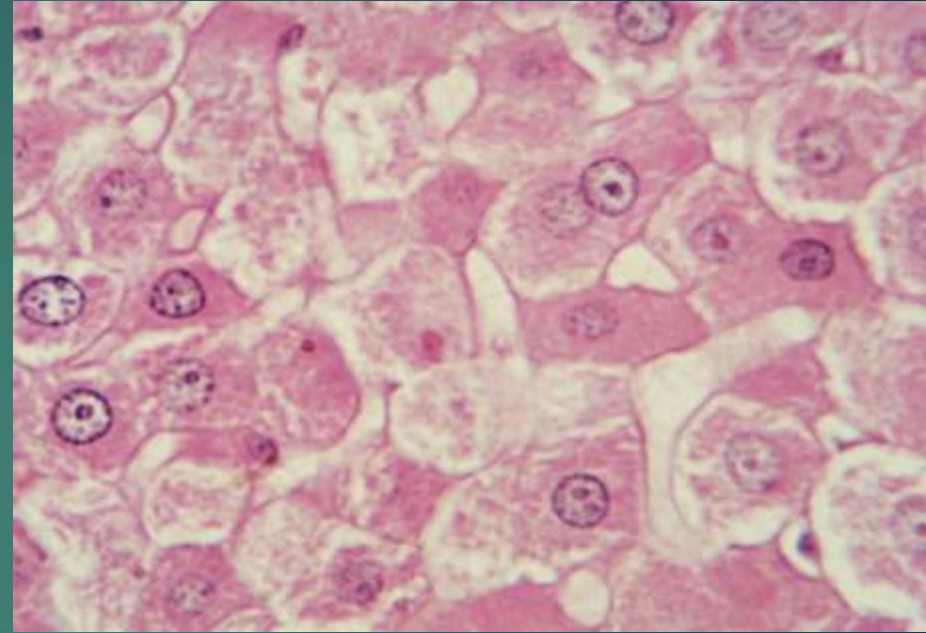


Micro photo. Hematoxylin-eosin staining. Coll. x 400

Rat liver after reproduction of an experimental model of acute immobilization stress

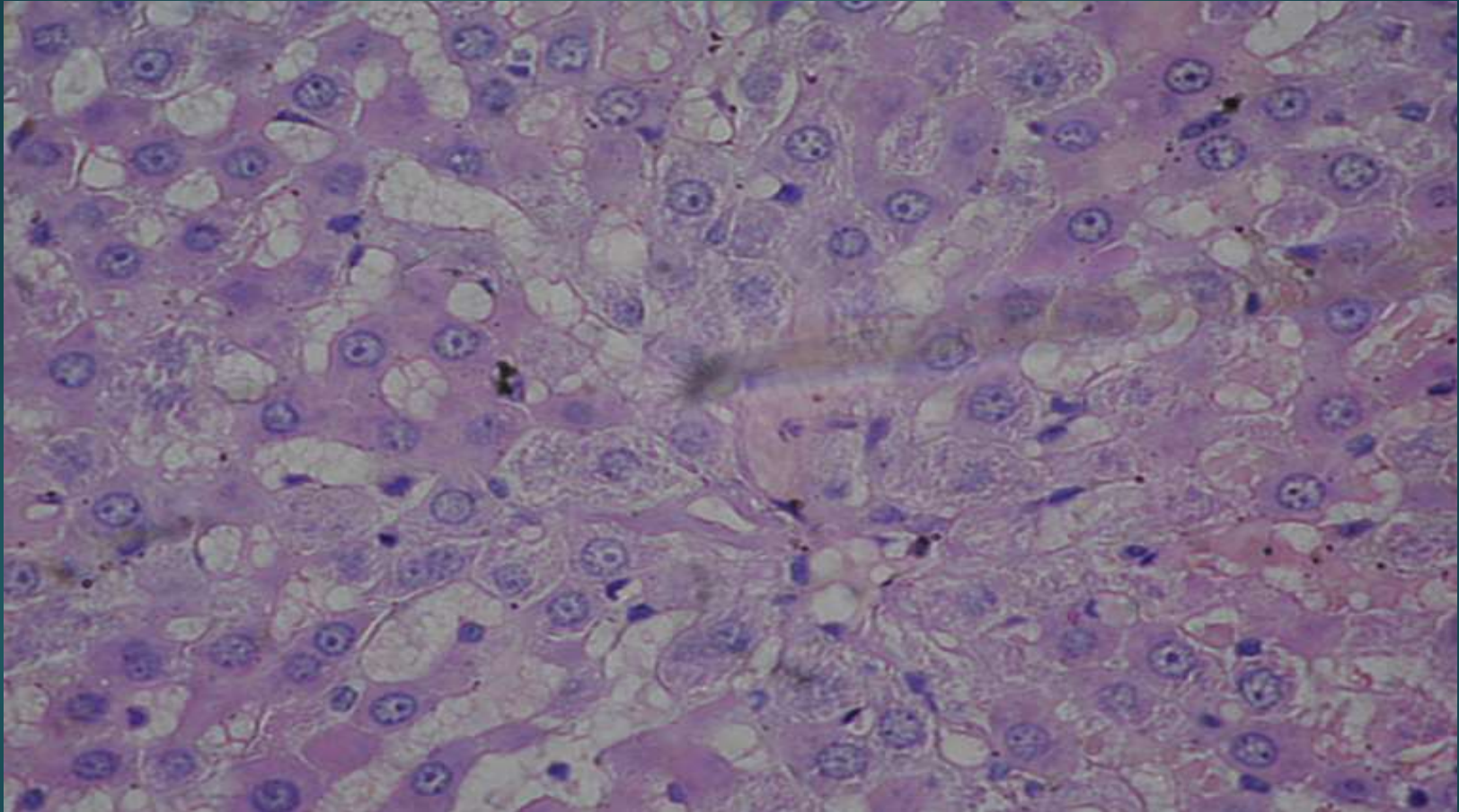


Subcapsular focal collication necrosis of some hepatocytes. Micro photo. Hematoxylin-eosin staining. Coll. x 40



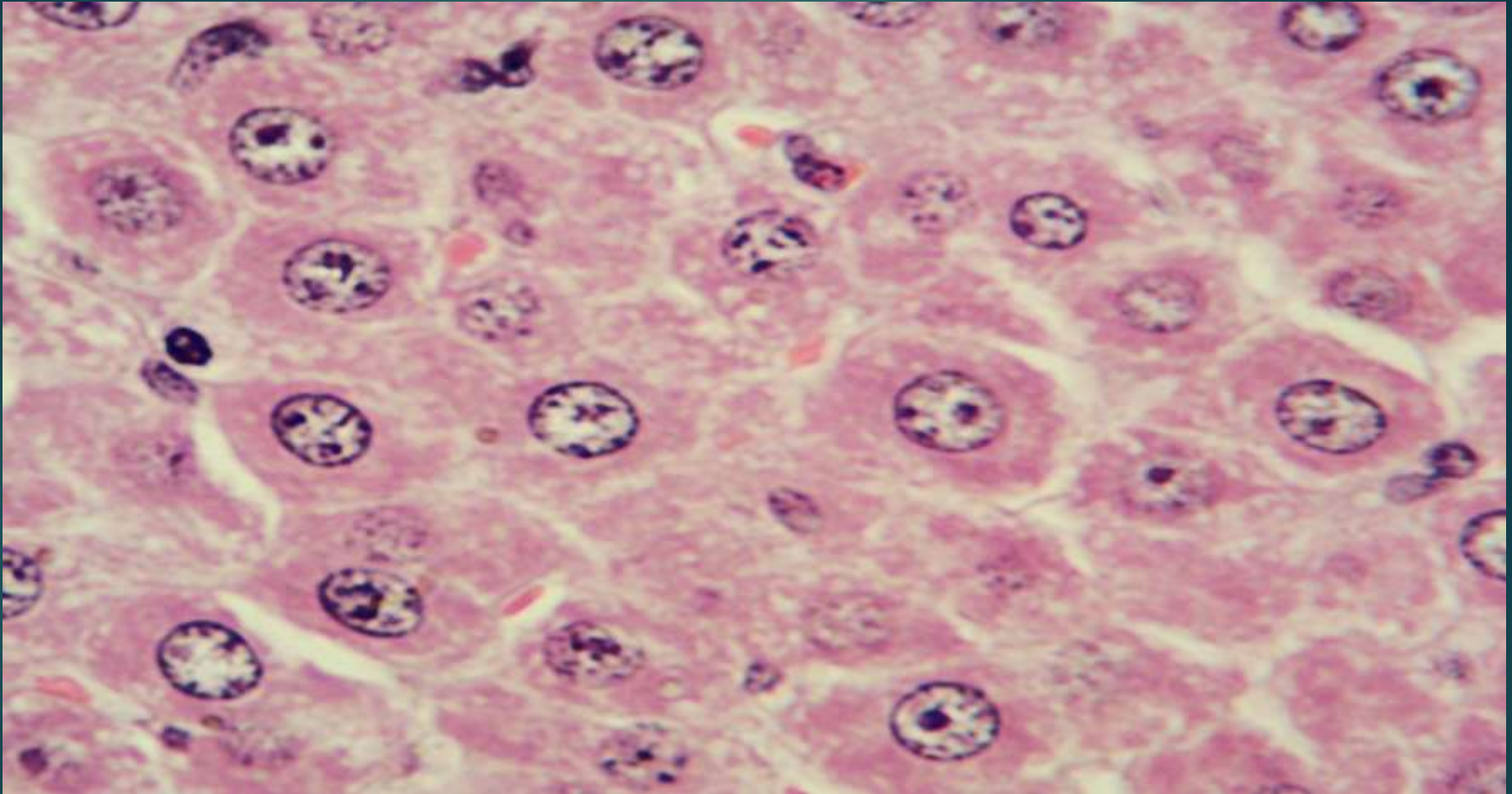
Subcapsular focal collication necrosis of some hepatocytes. Micro photo. Hematoxylin-eosin staining. Coll. x 400

Rat liver after reproduction of an experimental model of acute immobilization stress against Torasemide correction



**Hyaline-drip dystrophy in single hepatocytes.
Hematoxylin-eosin staining. Coll. x 200**

Rat liver after reproduction of an experimental model of acute immobilization stress against the background of Torasemide correction



Hydropic dystrophy in individual hepatocytes preserving the structure of the nucleus. Hematoxylin-eosin staining.

Coll. x 400

Conclusions:



The use of torasemide as a stress protector in acute stress reactions on the example of the liver has shown the feasibility of its use, as a result of morphological studies.

