

Almost to all respondents (93.0%) pharmacist recommended the certain medicines to eliminate the given symptoms. Practically ½ (49.0%) of the interviewed suffer from overeating or food intake with big intervals; 46.0% have frequent stress situations or sedentary life style; 41.0% eat salty, sharp, fat or fried food. Upon the availability of the specified factors the pharmacist should recommend the patient to correctly organize the working and rest environment, to change the nutrition regime, for the temporary improvement of the condition the choleric medicines can be prescribed.

**Conclusions.** Thus, the role of the pharmacist for dispense of over-the-counter medicines especially for the patients with the symptoms of the gallbladder dysfunction is very important. Qualitatively provided by the pharmacist a standard of the pharmaceutical care is a guarantee for the achievement of the positive compliance, maximum efficiency of the pharmacotherapy and at the same time it promotes the responsibility of the patient for own health (responsible self-medication).

## EXPERIMENTAL STUDY OF ANTI-INFLAMMATORY AND ANALGESIC EFFECTS OF THE NEW DERIVATIVES OF PIROXICAM

Siddiqui U. T.

Scientific supervisor: prof. Dobrova V. Ye.

National University of Pharmacy, Kharkiv, Ukraine

sporogolik@gmail.com

**Introduction.** Chemical synthesis provides us with new substances, which can become new medicines. One of the stages of the long path from a substance to a medicine is preclinical trials, conducted on animals. Understanding modern pathology modelling and the principles of operation of laboratory devices is crucial for obtaining valid results.

**Aim.** The aim was to study the principles of operation of laboratory devices in the experimental study of anti-inflammatory and analgesic effects of the new derivatives of Piroxicam on the model of carrageenan paw edema in rats.

**Materials and methods.** The experiment utilized such devices as plethysmograph „IITC Life Science” and analgesimeter Ugo Basile 37215. I operated both of the devices and made records of the results.

**Results and discussion.** The design of the experiment was as follows. We measured indicators of different groups of mice before and after injection of drug and inflammatory agent. Firstly, we weighted and marked laboratory mice for distinction and divided them into 4 equal groups. First group was control, mice didn't get new compound, only inflammatory agent. Two groups got new compounds, one for each group to determine which of them affect the most. And the last group got original Piroxicam as a drug with proven activity. Plethysmograph was used to measure volume of each mouse's paw to compare it after using compounds. Using these results, we could prove or disprove anti-inflammatory effect of each compound. Same approach we used with analgesimeter, measuring pain threshold to prove compounds' analgesic effect. Despite the fact that this method is partially subjective, we can still notice connections and come to conclusions about effectiveness of these newly created compounds.

**Conclusions.** Modern pathology modelling and investigation devices, such as plethysmograph „IITC Life Science” and analgesimeter Ugo Basile 37215, enable us to study new compounds. Plethysmograph operates by detecting changes in pressure of water column in the vessel. After we submerge the rat's paw in the vessel, the pressure rises, and the magnitude of this rise depends on the volume of the paw. The pressure change is then digitally converted into volume value of the submerged paw. Analgesimeter Ugo Basile 37215 operates by gradually and uniformly increasing weight on the rat's paw; the researcher detects the moment when the rat has pain reaction.