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Study of the Influence Of Apitherapy in Acrylamide Experimentally Induced Liver Disease Regarding Blood Count Parameters in Wistar Rats

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SUMMARY

Introduction. The purpose of this experiment was to study the influence of apitherapy in acrylamide-induced liver disease in rats. The experimental study objectives were the evaluation of blood count parameters in conditions of chronic liver damage induced by acrylamide. To reduce the factors that accelerate the progress of liver damage we have administered Apitherapy products.

Materials and Methods. Materials: Apitherapy products *Apiregya, ApiImunomod, ApiImunostim.* The Apitherapy products were purchased from "*Stupina LLC*. The animals were handled under thiopental induced general anesthesia. Determining the level of investigated parameters, i.e. serum total protein was measured using an automatic analyzer (Aeroset, Abbott) and commercial kits (Abbott, USA). A total of 40 Wistar white rats were used in the study; they were divided evenly into four groups: standard diet control group (group I), apitherapy and royal jelly control group (group II), acrylamide group (group III), acrylamide-apitherapy- royal jelly control group (group IV). The animals were kept under standard light and temperature conditions with access to food and water *ad libitum.* The toxic liver disease in rats was experimentally induced by gastric gavage administration of acrylamide (in aqueous solution, 50 mg /kg body weight).

Results and discussions. The administrationof the apitherapy + RJ to the group that first received the acrylamide (group IV) was effective for maintaining the parameters within limits that were close to the standard food values group (group II) regarding the leukocyte count, erythrocyte number, hemoglobin, hematocrit, VEM, HEM, CHEM, erythrocyte distribution width, thrombocyte count, average thrombocyte volume, width of thrombotic distribution.

Conclusions. The study proves that Apitherapy preparations like Apiregya, ApiImunostim, ApiImunomod are efficient in treating liver damage disease and they normalize the liver blood count.

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