STUDIUL ACTIVITĂȚII ENZIMATICE AL TRANSAMINAZELOR ÎN URMA EXPUNERII LA PESTICIDE ÎNTR-O COHORTĂ DIN ZONELE LIMITROFE JUDEȚULUI BRAŞOV

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The increasing number of planet’s population made scientists to find new methods to increase agricultural production, among these, the pesticides. In 2000, pesticides of 30 billions US dollars value were bought but their diversity and great number increased the risks on animal and human health.

The aim of this paper was to evaluate the serum level of transaminase activity on a group of 75 persons which were exposed to pesticides during their activities compared to 25 non-exposed individuals. The sample sorting was based on a pre-test questionnaire of 16 items; general data were collected, data related to the history of exposure, the manners of protection during usage and the confounding factors.

Method and materials: Fresh serum from the exposed and non-exposed group was collected, later being mixed with specific reactive, the NADH method, Kinetic UV, IFCC rec. Liquid, Spinreact, Girona, Spain. Measurements were done with T80 UV/VIS spectrophotometer, PG Instruments Ltd,

Leicestershire, United Kingdom on a 340nm wavelength, with samples brought to 25°C.

Results: For TGO/ AST in the exposed group (Mean = 33.281, Standard Deviation = 24.8, Confidence Intervals 95% = 27.57 - 38.99) compared with non-exposed group (Mean = 23.030, Standard Deviation = 6.23, Confidence Intervals 95% = 20.51- 25.55) we obtained with Student Test two samples p = 0,040. For TGP/ ALT in the exposed group (Mean = 36.175, Standard Deviation = 29.3, Confidence Intervals 95% = 29.43- 42.92) compared with non-exposed group (Mean = 23.511, Standard Deviation = 8.73, Confidence Intervals 95% = 19.99-27.04) we obtained with Student Test for two samples p = 0,033.

Conclusions: Epidemiologic and experimental studies and our study as well, support the hypothesis of which the exposure to organochlorines for a long time affect the liver and increase the serum level of transaminases.