

### General immunological properties of fat-soluble (cernitin GBX) and water-soluble (cernitin T60) pollen extracts

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Extracts from the pollen of specially selected plants (Cernitins) are free from antigens and other high molecular weight substances. Numerous components belonging to various classes of chemical substances have been identified in pollen: essential aminoacids, vitamins, sterols, minerals and trace elements as well as carbohydrates, deoxyribosides, enzymes and coenzymes.

Immunological properties of fat-soluble (Cernitin GBX) and water-soluble (Cernitin T60) pollen extracts were examined in animals and in humans, in vivo and in vitro. For investigation in vitro we have used the water-soluble pollen extract (T60), and in vivo the fat-soluble for (GBX) was applied. The aim of the in vivo experiments was to evaluate their effect on IgG antibody production, capability for rosette formation (E-RFC) and cell indicating IgM-PFC hemolysins. Besides, observations were made on pollen extract effect on graft versus host reaction, transplantation barrier and delayed hypersensitivity in relation to SRBC. Its assumed effect on phagocytosis and blastic transformation was assessed in vitro. In both in vivo and in vitro systems the influence of T60 and GBX preparations on the population of T- and B-cells was tested.

Our observations confirm the results obtained by Kimura and Inoue demonstrating lack of allergic properties of both Cernitins. Our studies proved however that there is a relationship between immunological system and the tested Cernitins. As follows from the above mentioned, the pollen extracts possess effective an immunosuppressive effect (E-RFC, B-lymphocytes antagonism in relation to blastogenic effect of PHA) and occasionally they act as a stimulator (PFC, blastic index). In some experimental systems they are ineffective (GvH, transplantation barrier, SEC test).

Conclusion: Both examined Cernitins demonstrate moderate immunoregulatory properties, but the immunosuppressive component is prevailing.

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