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Predisposition factors of the occurrence of allergies - XIV

Master's Degree Thesis

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Field of study: Pharmacy

**Background:** To determine the influence of external and hereditary factors on the occurrence of allergies and to compare the obtained data.

**Method:** A questionnaire study. More than 4000 children born between 1989 and 1990 and 1992 and 1993 always in the same parts of the Czech Republic were included in this study. The questionnaires were filled in by children's parents. The children were divided into two groups – children with and without allergies. The questionnaire contained questions concerning three different stages of their lives – up to two years of age, from six to eight years of age and from eleven to thirteen years of age.

**The results:** We found that the number of children who suffered from all-year round allergic rhinitis and urticaria after eating certain types of foodstuffs and asthma slightly increased during the period of three years. On the contrary, in hay-fever, allergic cough and eczema, the number slightly decreased. There was seen a significant decrease in drug allergy. A hereditary factor was found to be significant in the incidence of allergies, especially when the mother of the child suffered from allergic disorders. Children with allergies frequently had older siblings who were also allergic. Fever occurring only once a year can have a certain protective effect against the occurrence of allergy. But if children have more than one fever in a year, the occurrence of allergies is more frequent. A similar situation is encountered with antibiotic usage. Children without allergic problems are frequently found to take antibiotics no more than once a year. On the contrary, we recorded more frequent use of antibiotics in children with allergies. A permanent contact of children with a dog, a cat or a farming animal should have a certain protective effect against the occurrence of allergies. Our study confirmed this assumption. The early attendance of children's institutions and its protective effect against allergies could not be confirmed or excluded by our results.

**Conclusion:** Based on our results we can state that in some allergic diseases the number of ill children increased during the period of three years, however in other allergic diseases it decreased. Amongst the external risk factors are frequent fevers (twice or more per year) and increased antibiotic usage (twice or more per year). Contact of children with a dog, a cat or a farming animal and fevers which occur only once a year can be considered protective factor