

ABSTRACT

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Title of diploma thesis: Drug allergies – immunopathological reactions of skin and mucous membranes

Immune reactions to small molecular compounds as drugs can cause a variety of diseases mainly involving skin, mucous membranes, liver, kidney, lungs and other organs. In addition to relatively well-known immediate and IgE mediated reactions to drugs, many drug – induced hypersensitivity reactions appear delayed. These reactions are predominantly characterized by exanthematous macular or maculopapular skin eruptions. However, approximately 2 % of cases develop into a severe and life – threatening systematic immune reaction associated with organ damage.

Severe/life – threatening reactions include bullous reactions, such as Stevens – Johnson syndrome, toxic epidermal necrolysis, but also acute generalized exanthematous pustulosis and drug reaction with eosinophilia and systemic symptoms.

Advances in the understanding of the pathophysiology of these reactions is based on the understanding of the mechanisms by which drugs are recognized by T lymphocytes, on a thorough analysis of subtypes and function of CD4+ and CD8+ T cells infiltrating skin and mucosal lesions, and on knowledge of the pharmacogenetics of reactions caused by T lymphocytes, which brings the ability to identify patients at increased risk of delayed hypersensitivity reactions.

Key words: delayed – type hypersensitivity, severe and life – threatening reaction, Stevens – Johnson syndrome, toxic epidermal necrolysis, T lymphocytes