

Charles University

Faculty of Pharmacy in Hradec Králové

Department of Pharmacology & Toxicology

Student: Gabriela Kovaříková

Supervisor: doc. PharmDr. Lukáš Červený, Ph.D.

Title of diploma thesis: New strategies for the treatment and prevention of migraine

Abstract:

Migraine is a severe neurological disease, which has many subtypes. Migraine affects patient's physical and mental well-being and also work and family relationships. Migraine manifests as characteristic pain accompanied by vomiting and nausea or other symptoms.

The first part of this paper deals with the current knowledge on pathophysiology of migraine, factors which affect migraine, degree of heritability, and specifics of chronic migraine. Diagnosis of migraine is also included and that based on MIDAS questionnaire are addressed in the diploma thesis.

The second part is devoted to the therapy of acute attacks and prophylaxis of migraine, describes drugs used in these indications, characterizes them in more detail and lists their limitations. This section also outlines new pathophysiological findings and molecules that may receive future attention. New biological therapies and progress in terms of monoclonal antibody registration are also described.

Nonpharmacological strategies for migraine treatment are mentioned as well. In addition, the therapy of migraine in specific subgroups of patients including pregnant or breastfeeding woman or children is discussed.

There has been rapid progress in the development of new drugs which have appropriate characteristics and also cause minimum adverse effects that can be advantageously used in patients with comorbidity.

**Key words:** headache, migraine, triptans, CGRP, monoclonal antibodies