

## Abstract

The aim of this bachelor thesis is to describe the occurrence of the thalassemias and hemoglobinopathies in eastern region of Czech Republic. The data of the patients were retrospectively evaluated. The patients were examined in the hematological laboratory. The examination was performed in the University Hospital in Hradec Králové since 1996 to 2015.

In the theoretical part is shortly described hemoglobin, his structure and functions. Futher on there are described congenital diseases - thalasemias and hemeglobinopathies. The diagnostical methods, laboratory findings and therapy are also mentioned.

The practical part is focused on diagnostical methods, which are used at the University Hospital in Hradec Kralové. Some of them are complete blood count, diferencial count blood smears and hemoglobin electrophoresis. The obtained laboratory data were statistically evaluated and compared with global occurrence of thalasemies and hemeglobinopathies.

Key words: thalassemia, hemoglobinopathy, blood count, hemoglobin electrophoresis