

Summary in English – MUDr. Jakub Radocha:

This project was focused on verifying the usefulness of free light chain (FLC) analysis as the new marker for evaluation of the activity of monoclonal gammopathies. For a long time we have been dedicating our efforts for the standardisation of methods for determination of the basic parameters in myeloma patients. FLC evaluation is not a cheap method and thus there was a need to reconfirm the reliability of information provided by manufacturer for its use. Formulated goals of this project represented the most likely beneficial indications for FLC use in clinical practice. Therefore in the first place, we standardized FLC analysis, then we examined benefit of this analysis in patients with MGUS and also for monitoring of the disease activity in MM patients. For serum analysis we used standard FLC assay (The Binding Site, UK). We collaborated with Registry of Monoclonal Gammopathies database of the Czech Republic (today, more than 4.000 patients). We were able to confirm validity of the prognostic model of MGUS stratification originally developed by Mayo Clinic. Moreover several other independent prognostic factors not included in the mentioned model have been identified, which we plan to include in the further analysis and development of more detailed prognostic model. For most patients with monoclonal gammopathies, except of those with oligosecretory MM, measuring FLC is unlikely to have additional benefit for monitoring of disease activity. Normalization of FLC ratio was not connected to statistically significant prolongation of complete remission duration.