Abstract:

This thesis focuses on traumatic brain injury and its negative impact on both the brain as a whole and component brain structures. The first two chapters of the theoretical part summarize the information of the anatomy and functions of central nervous system and the most common causes of traumas and its characteristics. The crucial part of the thesis consists of the psychological consequences of traumas arranged according to brain lobe that plays the major role in a clinical manifestation of impaired functions. The thesis also sums up the field of neurodiagnostics and mentions some concrete methods that are being used when dealing with patients after traumas. The last chapter of the theoretical part deals with possibilities and examples of neurorehabilitation as well as factors which are involved in the prognosis of the posttraumatic condition. A part of this chapter also pays attention to the brain plasticity. The last two chapters in this segment refer to other literature from this field.

The empirical part presents the research proposal of changes of the brain parts that are involved in facial emotion recognition among TBI patients. The research tools are Ekman 60 Faces Test and an imaging technique SPECT.

Key words:

Central nervous system, brain lobes, neurodiagnostics, psychological consequences, emotion recognition, traumatic brain injury