

Abstract

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Brain Trauma II - Biomarkers in clinical diagnosis of head trauma

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The aim of my work was recherche literature and electronic information resources that focus on brain injuries and their complications, as well as the types and importance of biomarkers in clinical diagnosis of head trauma.

Brain injuries can be classified according to various aspects. From the physical point of view is divided into a translational and acceleration injuries. The translational injuries depends on whether there is or isn't direct contact with another body. Acceleration injuries can be divided into linear, in which there is a bruising of surface structures and spin accidents resulting in trauma deep brain structures.

In terms of the pathophysiology of brain injury is divided into primary, occurs at the time of injury and secondary occurs with an interval of trauma as a late result of this injury.

In terms of clinical severity of craniocerebral injury can be divided into mild, moderate and severe. The final factor is the length of coma after the accident and the consequences.

Dividing brain injury is not completely uniform.

Among the most serious extracranial complications are disseminated intravascular coagulation, ion imbalance, pneumonia, bleeding into gastro-intestinal tract. Intracerebral complications are hematoma, likvorea, pneumocephalus, cerebral ischemia, infection, hydrocephalus, cranial nerve disorders, vascular lesions and epilepsy.

Furthermore, we discussed the work using biomarkers in clinical diagnosis of head trauma. Biomarkers are proteins, fragments or derivatives thereof, and are associated with neural cells, brain cells, or cells that are present in the brain and central nervous system. The composition of biomarkers is important for the diagnosis of nervous injury, damage and/or nervous disorders. Another use of biomarkers may be providing information about the mechanism of injury, mode of cell death, place of injury, better diagnostics.

Biomarkers may inform prognosis and may serve to identify patients with increased risk of adverse effects of specific therapies.