Identifying Risk Factors for Incidence of Mental Disorders after Traumatic Brain Injury

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Article abstract:

Background: Organic brain pathology usually may be followed by mental disorders. This research was aimed at constructing a predictive model and investigating the risk factors in the incidence of mental disorders after traumatic brain injury (TBI).

Materials and Methods: Two hundred and thirty eight patients (195 males and 43 females) were entered the study in a descriptive-longitudinal design by non-probable and consecutive sampling method. They were undergone neurosurgical examinations and psychological evaluations. After a 4-month follow-up, 65.1% of the patients (N=155) referred to a psychiatrist in order to determine the nature of mental disorder following TBI, using a structured clinical interview based on DSM-IV diagnostic criteria.

Results: 75.48% (117 cases) of patients had a form of mental disorder secondary to TBI. The Results of binary logistic regression analyses for calculating odds ratio (OR) model with 95% confidence interval (CI) indicating the severity of TBI (OR\textsuperscript{794.3}, CI\textsuperscript{%95=1.259-9.712}), presence of subcranial injury (OR\textsuperscript{2.834}, CI\textsuperscript{%95=1.022-7.857}) and falling level of general compatibility, as measured by modified version of GHQ-28 (OR\textsuperscript{270.1}, CI\textsuperscript{%95=1.035-1.111}) indicated an increasing risk in the incidence of mental disorder.

Conclusion: Findings revealed that in the development of post-TBI mental disorders, first there was a close relationship with organic brain pathology (TBI severity and subcranial injury), although the role of effective psychological factors such as level of general compatibility after trauma should not be neglected. Also in order to predict the people at risk of mental disorders after TBI, the proposed predictive model in this study can be used.

Keywords: Traumatic brain injury, Mental disorders, Predictive factors.