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CAN TGF- β BE A VALUABLE MARKER FOR PSYCHOSIS?

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Role of cytokines has been widely investigated in schizophrenia. Previous data suggest that TGF- β pathways can be hyperactive in schizophrenia. Serum levels of TGF- β showed to be significantly increased in psychotic patients with first episode psychosis and schizophrenia in relapse. As a part of recently publish research, we try to establish if TGF- β can be a valuable marker for psychosis. We investigated psychotic patients, with first episode psychosis and schizophrenia in relapse (133 subjects) and healthy controls (36 subjects). Diagnoses were established using International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10). The psychopathological status of psychotic patients was assessed by trained physicians using Positive and Negative Syndrome Scale (PANSS). Serum level of cytokine was measured using sensitive enzyme-linked immunosorbent assay (ELISA). Binary logistic regression showed that increased level of TGF- β strongly correlated with presence of psychosis (OR 1.068 (1.015-1.123)). Analysis showed that TGF- β can be a valuable marker for psychosis (area =0.775, $p < 0.0005$). The optimal cutoff value estimated for TGF- β that allows the discrimination of psychotic from non psychotic patients was 22 pg/ml. For this cut-off we got sensitivity 70.4% and specificity 80.6%, i.e. this concentration of 22 pg/ml TGF- β could have prognostic value. We envisage the possible role of TGF- β as a biomarker in preceding schizophrenia and showed that increased level of TGF- β enhanced the risk for psychosis. According to our results, TGF- β could be a valuable marker for schizophrenia.

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