

The Difference of Serum Tnf- α Levels between Patients Schizophrenic Male with Smoking and Healthy Control

Authors : Rona Hanani Simamora, Bahagia Loebis, M. Surya Husada

Abstract : Background: The exact cause of schizophrenia is not known, although several etiology theories have been proposed for the disease, including immune dysfunction or autoimmune mechanisms. Cytokines including Tnf- α has an important role in the pathophysiology of schizophrenia and the effects of pharmacological treatment with antipsychotics. Nicotine is widespread effects on the brain, immune system and cytokine levels. Smoking among schizophrenic patients could play a role in the altered cytokine profiles of schizophrenia such as Tnf- α . Aims: To determine differences of serum Tnf- α levels between schizophrenic patients with smoking in male and healthy control. Methods: This study was a comparative analytic study, divided into two groups: 1) group of male schizophrenic patients with smoking (n1=30) with inclusion criteria were patients who have been diagnosed schizophrenic based PPDGJ-III, 20-60 years old, male, smoking, chronic schizophrenic patients in the stable phase and willing to participate this study. Exclusion criteria were having other mental disorders and comorbidity with other medical illnesses. 2) healthy control group (n2=30) with inclusion criteria were 20-60 years old, male, smoking, willing to participate this study. Exclusion criteria were having mental disorder, a family history of psychiatric disorders, the other medical illnesses, a history of alcohol and other substances abuse (except caffeine and nicotine). Serum Tnf- α were analyzed using the Quantikine HS Human Tnf - α Immunoassay. Results: Serum Tnf- α level measure in patient schizophrenia male with smoking and compared with the healthy control subjects. Tnf- α levels were significantly higher in patients schizophrenic male with smoking ($25,79 \pm 27,96$) to healthy control subjects ($2,74 \pm 2,19$), by using the Mann Whitney U test showed a statistically significant difference was observed for serum Tnf- α level ($p < 0,001$). Conclusions: Schizophrenia is a highly heterogeneous disorder, and this study shows an increase Tnf- α as pro-inflammation cytokines in schizophrenics. These results suggest an immune abnormalities may be involved in the etiology and pathophysiology of schizophrenia.

Keywords : male, schizophrenic, smoking, Tnf Alpha

Conference Title : ICPPD 2017 : International Conference on Psychiatry and Psychiatric Disability

Conference Location : Kuala Lumpur, Malaysia

Conference Dates : February 12-13, 2017