

ABSTRACT

**MAGNESIUM RELATIONS (Mg), CALCIUM (Ca), and C-REACTIVE
PROTEIN (CRP) ON SKIZOFRENIA PATIENTS
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Schizophrenia is a term used to describe a major psychiatric disorder characterized by a change in one's perceptions, thoughts, affects, and behaviors. Magnesium is a natural antagonist of Calcium and is a Voltage-dependant blocker of N-Methyl-D-aspartate (NMDA) channel that plays an important role in the process of entering Calcium into neurons. Under normal conditions Magnesium ions block the entry of Calcium into neurons through NMDA receptors that can cause neuronal damage because of the opening of NMDA-couple calcium channels. In schizophrenia, neuronal cell death occurs due to an unbalanced ratio of magnesium and calcium which causes micro disruption of cerebral structures associated with increased CRP. This study aims to determine the profile of Mg, Ca and CRP in patients with schizophrenia in RSUD Dr. Soetomo Surabaya. Subjects were patients with diagnoses of schizophrenia present in IRD and IRNA Soul Dr. Soetomo Surabaya. The mean value of Ca from 55 samples in this study was 9.871 mg. Since the normality assumption of the data is not met, the Pearson correlation test is inaugurated by Rank Spearman correlation test. The sig value of correlation between Ca and Mg is 0.000. This value is smaller than 0.05 so it can be concluded there is a significant relationship between Ca and Mg. The coefficient between these two variables is 0.774 (very strong). The value of this correlation coefficient has the meaning that the increase of Ca will be followed by the increase of Mg and vice versa decrease of Ca will be followed by decrease Mg. In the correlation between Ca and CRP obtained a significant value of 0.431. This value is greater than 0.05 so that between these two variables there is no significant relationship which means the change of Ca value will not affect the change of CRP value. The correlation between Mg and CRP yielded a significant value of 0.271. This value is greater than 0.05 so the conclusion can be drawn that there is no significant relationship between Mg and CRP. This condition shows that the change in Mg value will not affect the change of CRP value

Keywords: *Schizophrenia, Mg, Ca, CRP*