

Differences of Vitamin D Serum Status by Ethnicity between Bataknese in the Highland and Malayan in the Lowland on Schizophrenic Patient in North Sumatera

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Abstract : Background: Vitamin D levels with schizophrenia is lower than the control due to lifestyle and physical health factors such as smoking, increases of body mass index, inactivity, and social withdrawal including decreases of sunlight exposure. Asia has the lowest average of vitamin D serum levels and Europe with lighter colored skin has higher serum levels of vitamin D. Indonesia is a tropical region in the area of the equator, and has only two seasons: the rainy season and summer. The Indonesian people are known as a nation that has a diversity of ethnic groups that exist in many areas. Each tribe has differences in living habits. Ethnic diversity, culture, religion, customs, geographical location, this is reflected in our daily lives that will affect the levels of vitamin D in patients with schizophrenic. Individuals with darker skin tend to be deficient in vitamin D and increases the chance of schizophrenia than the general population. Aims: To determine the difference of vitamin D serum by ethnicity between Bataknese and Malayan schizophrenic patient. Methods: This study was an analytical study to recruited 60 subjects of schizophrenic male patient (30 Bataknese and 30 Malayan), aged between 15 to 55 years old, period at May - November 2016, the acute phase with no agitation. Statistical analysis was using T- independent test. Blood sample for vitamin D serum was using ELFA method. Results: The vitamin D serum levels were lower in Bataknese ethnic group schizophrenic patients in highland than Malayan ethnic group in lowland, reaching statistically (22.9 ± 3.33 ng/ml) vs (27.9 ± 4.19 ng/ml) $p < 0,001$. Conclusion: There are significant differences of vitamin D serum Status by Ethnicity between Bataknese in the Highland and Malayan in the Lowland on Schizophrenic Patient in North Sumatera.

Keywords : schizophrenia, serum vitamin D, ethnicity

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