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POLYMORPHISM OF NATURAL-RESISTANCE-ASSOCIATED MACROPHAGE PROTEIN 1 (NRAMP1) D543N GENE AND EXPRESSION OF NRAMP1 ON LUNG TUBERCULOSIS PATIENTS AND NURSES IN SURABAYA
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AUDITORY NEUROPATHY IN DR SOETOMO HOSPITAL**
(Haris M Ekorini)

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CORRELATION BETWEEN BLOOD SEROTONIN LEVEL WITH CONSCIOUSNESS LEVEL AND DEPRESSION SYMPTOMS IN MODERATE BRAIN INJURY PATIENTS

CORRELATION BETWEEN BLOOD SEROTONIN LEVEL WITH CONSCIOUSNESS LEVEL AND DEPRESSION SYMPTOMS IN MODERATE BRAIN INJURY PATIENTS

1. Andre Kusuma --> Department of Neurosurgery, Faculty of Medicine, Airlangga University, Dr. Soetomo Hospital, Surabaya
2. M. Arifin Parenrengi --> Department of Neurosurgery, Faculty of Medicine, Airlangga University, Dr. Soetomo Hospital, Surabaya
3. Margarita Maria Maramis --> Department of Psychiatry, Faculty of Medicine, Airlangga University, Dr. Soetomo Hospital, Surabaya

Abstract

To analyze a correlation between blood serotonin level, level of consciousness after resuscitation, and depression symptoms to reveal pathological neurobiochemistry level on moderate brain injury patients. This study uses analytical prospective with cross sectional design. Blood sample was taken using disposable sputum approximately 5 cc and was kept in the closed container and centrifuged. The temperature was kept at -200C. Serum was used to determine serotonin level in the blood. Blood sample was taken twice: before 24 hrs after brain injury and less than 1 month afterwards. To examine depression level Hamilton Rating Scale for Depression (HAM-D) was used to figure out whether there is depression symptoms after brain injury. Glasgow Coma Scale was used to examine level of consciousness. The statistical analysis using Spearman correlation resulted in $r_s = 0,295$ and $p=0,090$ ($p>0,05$), which means that there is no association between consciousness level and serotonin level before 24 hrs after brain injury. The statistical analysis using Spearman correlation resulted in $r_s = 0,309$ and $p=0,075$ ($p>0,05$), which means that there is no association between serotonin level one month after injury and depression level. The last, the statistical analysis using Phi coefficient resulted in $\Phi = 0,342$ and $p=0,046$ ($p<0,05$), which means that there is correlation between serotonin level one month after injury and occurrence of depression, which means that people with lower level of serotonin have higher occurrence of depression than people with higher level of serotonin. There is no significant correlation between level of consciousness and serotonin level in the blood under 24 hrs after brain injury. There is significant correlation between serotonin level one month after injury and occurrence of depression.

Keyword : serotonin, Glasgow, Coma, , Scale, , , ,

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