POLYMORPHISM OF NATURAL-RESISTANCE-ASSOCIATED MACROPHAGE PROTEIN 1 (NRAMP1) DS43N GENE AND EXPRESSION OF NRAMP1 ON LUNG TUBERCULOSIS PATIENTS AND NURSES IN SURABAYA
(Rahayu Anggraini et al.)

45 kDa FIMBRIA PROTEIN OF PROTEUS MIRABILIS AS HEMAGGLUTININ AND ADHESION PROTEIN
(Diana Chusna Mufida et al)

DIAGNOSTIC VALUE OF VIDAL SLIDE ASSAY USING ONE PHAGE TYPE LOCAL ANTIGEN COMPARED WITH FOUR PHAGE TYPES LOCAL ANTIGEN IN TYPHOID FEVER PATIENTS IN SURABAYA
(Yetti Hemaningsih, Bety Agustina T, Ayab)

DIFFERENCES OF TUMOR NECROSIS FACTOR ALPHA (TNF-α) PLASMA CONCENTRATION IN MALARIA PATIENTS WITH ANEMIA AND WITHOUT ANEMIA
(Ety Retno Scytowati, Endang Retnowati, Juli Soemarno)

DIFFERENCES ON EPIDERMAL GROWTH FACTOR (EGF) LEVELS BETWEEN UNPRESERVED AND PRESERVED AMNIOTIC MEMBRANE
(S. Gunawan Effendi, Galuh Suherindo, Indro Handoyo)

CYTOTOXICITY EFFECT OF CURCUMA AERUGINOSA EXTRACT ON FIBROBLAST WITH MTT ASSAY METHOD
(Tri Hartini Yuliawati, Eka Pramythta Hestianah)

CORRELATION BETWEEN BLOOD SEROTONIN LEVEL WITH CONSCIOUSNESS LEVEL AND DEPRESSION SYMPTOMS IN MODERATE BRAIN INJURY PATIENTS
(Andre Kusuma, M. Arifin Parerenggi, Margarita Maria Maronis)

BLOOD SEROTONIN LEVEL WITH THE DEPRESSION SITUATION AND NEUROCOGNITIVE AS A REFLECTION OF NEURON CONDITION SIX MONTHS AFTER MODERATE BRAIN INJURY
(Ila Tunisya, Margarita M. Maronis, Andre Kusuma)

ASSOCIATION BETWEEN HEART DISEASE IN PREGNANCY WITH CARDIAC EVENTS
(Suryono, Jatno Kanyono)

ENDOSCOPIC FINDING OF UPPER GASTROINTESTINAL BLEEDING AT DR SOETOMO HOSPITAL, SURABAYA
(Titong Sugihartono et al)

CORRELATION BETWEEN TNF-α, IL-1β, PGE2 AND sPLA2 LEVELS WITH SEVERITY OF DENGUE HEMORRHAGIC FEVER
(Purnati, Endang Retnowati K)

Case Report:
AUDITORY NEUROPATHY IN DR SOETOMO HOSPITAL
(Haris M Ekorni)
# Table of Contents

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>POLYMORPHISM OF NATURAL-RESISTANCE-ASSOCIATED MACROPHAGE PROTEIN 1 (NRAMP1) D543N GENE AND EXPRESSION OF NRAMP1 ON LUNG TUBERCULOSIS PATIENTS AND NURSES IN SURABAYA</td>
<td>78 - 87</td>
</tr>
<tr>
<td>2</td>
<td>45 kDa FIMBRIA PROTEIN OF Proteus mirabilis AS HEMAGGLUTININ AND ADHESION PROTEIN</td>
<td>88 - 94</td>
</tr>
<tr>
<td>3</td>
<td>DIAGNOSTIC VALUE OF WIDAL SLIDE ASSAY USING ONE PHAGE TYPE LOCAL ANTIGEN COMPARED WITH FOUR PHAGE TYPES LOCAL ANTIGEN IN TYPHOID FEVER PATIENTS IN SURABAYA</td>
<td>95 - 101</td>
</tr>
<tr>
<td>4</td>
<td>DIFFERENCES OF TUMOR NECROSIS FACTOR ALPHA (TNF-Î±) PLASMA CONCENTRATION IN MALARIA PATIENTS WITH ANEMIA AND WITHOUT ANEMIA</td>
<td>102 - 111</td>
</tr>
<tr>
<td>5</td>
<td>DIFFERENCES OF EPIDERMAL GROWTH FACTOR (EGF) CONCENTRATION BETWEEN UNPRESERVED AND PRESERVED AMNIOTIC MEMBRANE</td>
<td>112 - 119</td>
</tr>
<tr>
<td>6</td>
<td>CYTOTOXICITY EFFECT OF CURCUMA AERUGINOSA EXTRACT ON FIBROBLAST WITH MTT ASSAY METHOD</td>
<td>120 - 124</td>
</tr>
<tr>
<td>7</td>
<td>CORRELATION BETWEEN BLOOD SEROTONIN LEVEL WITH CONSCIOUSNESS LEVEL AND DEPRESSION SYMPTOMS IN MODERATE BRAIN INJURY PATIENTS</td>
<td>125 - 131</td>
</tr>
<tr>
<td>8</td>
<td>BLOOD SEROTONIN LEVEL WITH DEPRESSION SITUATION AND NEUROCOGNITIVE AS A REFLECTION OF NEURON CONDITION IN SIX MONTHS AFTER MODERATE BRAIN INJURY</td>
<td>132 - 138</td>
</tr>
<tr>
<td>9</td>
<td>ASSOCIATION BETWEEN HEART DISEASE IN PREGNANCY WITH CARDIAC EVENTS</td>
<td>139 - 145</td>
</tr>
<tr>
<td>10</td>
<td>ENDOSCOPIC FINDING OF UPPER GASTROINTEINAL BLEEDING AT DR SOETOMO HOSPITAL, SURABAYA</td>
<td>146 - 149</td>
</tr>
<tr>
<td>11</td>
<td>CORRELATION BETWEEN TNF-Î±, IL-1Î², PGE2 AND sPLA2 LEVELS WITH SEVERITY OF DENGUE HEMORRHAGIC FEVER</td>
<td>150 - 154</td>
</tr>
<tr>
<td>12</td>
<td>Case Report: AUDITORY NEUROPATHY IN Dr. SOETOMO HOSPITAL</td>
<td>155 - 160</td>
</tr>
</tbody>
</table>
BLOOD SEROTONIN LEVEL WITH DEPRESSION SITUATION AND NEUROCOGNITIVE AS A REFLECTION OF NEURON CONDITION IN SIX MONTHS AFTER MODERATE BRAIN INJURY

Abstract

Brain injury is still a public health problem that causes a very serious long-term disability and death especially in children and young adults. Of all the events brain injury, in the 70-85% estimate is a moderate brain injury. Neurocognitive deficits that occur after brain injury would be to show an improvement in the first six months and a relative improvement will be slow and almost not visible in six to 12 months after brain injury. Serotonin is the neurotransmitter most often associated with depression and also a key to neurogenesis. This study is an observational analytic study using cross sectional study of patients who had suffered a brain injury six months ago and treated in Dr. Soetomo hospital Surabaya. The result is there is significant correlation between blood serotonin levels in patients with depression situation in six months after brain injury (p = 0.00). There is also significant correlation between blood serotonin levels with some neurocognitive parameters in patients six months after brain injury, namely verbal fluency are examined with the Verbal Fluency Test parameters / VFT (p = 0.015). But serotonin concentration has no significant relationships with several other neurocognitive parameters, namely the accuracy and speed of information processing or reaction time, working memory and the ability to interpret visual information, each of which is checked by using the parameters of Inspection Time Task (ITT, p = 0.083), Continuous Performance Task-identical pairs (CPT-IP, p = 0.071) and the Continuous Performance Task-Degraded Stimuli (CPT-DS, p = 0.242).

Keyword : serotonin, depression, neurocognitive, moderate, brain, injury,

Daftar Pustaka: