FOLIA MEDICA INDONESIANA

Vol. 46 No. 2 April – June 2010

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 WIDAL SLIDE ASSAY USING ONE PHAGE TYPE LOCAL ANTIGEN COMPARED WITH FOUR PHAGE TYPES LOCAL ANTIGEN IN TYPHOID FEVER PATIENTS IN SURABAYA
(Yetti Hemaringgah, Bety Agustina T, Ayati)

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

DIFFERENCES ON EPIDERMAL GROWTH FACTOR (EGF) LEVELS BETWEEN UNPRESERVED AND PRESERVED AMNIOTIC MEMBRANE
(R. Gunawan Effendi, Gatut Suhendar, Indro Handoyo)

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

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

BLOOD SEROTONIN LEVEL WITH THE DEPRESSION SITUATION AND NEUROCOGNITIVE AS A REFLECTION OF NEURON CONDITION SIX MONTHS AFTER MODERATE BRAIN INJURY
(Ila Tunisia, Margarita M. Maramis, 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
(Purwati, Endang Retnowati K)

Case Report:
AUDITORY NEUROPATHY IN DR SOETOMO HOSPITAL
(Haris M Ekornini)

International Online Distribution by ProQuest™
www.proquest.com

| Folia Medica Indonesiana | Vol.46 | No. 2 | Page 78-160 | Surabaya Apr-Jun 2010 | ISSN 0303 - 7932 |
## 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 GASTROINTESTINAL 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>
DIFFERENCES OF EPIDERMAL GROWTH FACTOR (EGF) CONCENTRATION BETWEEN UNPRESERVED AND PRESERVED AMNIOTIC MEMBRANE

Abstract

Previous studies have provided good evidence in supporting the strong opinion that amniotic membrane is good for medical treatment. This is due to growth factors contained in the above mentioned, amniotic membrane. Amniotic membrane can be used in the form of none preserved as well as preserved. Preservation processes including cryopreservation, however could reduce the viability of cells as well as the concentration of growth factors. This decrease will influence the function of amniotic membranes. The objective of this study is to measure the difference of EGF concentration in between fresh amniotic membranes and with preservation (cryopreservation) in 16 amniotic membranes. We divided each amniotic membrane into two parts. The first part was extracted in fresh forms and the second part underwent preservation (cryopreservation) with glycerol 50% and was stored at - 80˚C during 1 month before extraction. Both parts of the membrane were extracted using ultrasonic disintegrator and concentration of EGF was measured from the obtained extract using ELISA method. Results showed that the average concentration of EGF in the fresh amniotic membrane was 122.76 ± 11.59 pg/g while the average concentration of EGF in the amniotic membrane underwent preservation (cryopreservation) was 99.34 ± 9.49 pg/g. Average degradation of EGF concentration due to preservation (cryopreservation) is 18.49% ± 10.20%. So, we conclude that EGF concentration in fresh amniotic membrane is significantly higher than the EGF concentration in amniotic membrane underwent preservation (cryopreservation) (p = 0.000). Degradation of EGF concentration due to preservation (cryopreservation) at 95% confidence interval is 12.33% to 24.66%.

Keyword : Epidermal, growth, factor, amniotic, membrane, preservation, cryopreservation, ultrasonic, disintegrator, ,

Daftar Pustaka :