FOLIA MEDICA INDONESIANA
Vol. 41 No. 2 April - June 2005

Editorial .................................................................................................................. 83

Opinion :
BIOETHICS. ITS ROLE IN RESEARCH
(M Sani Darmadipura) .......................................................................................... 84

GASTROPROTECTIVE EFFECT OF CURCUMINE ON ETHANOL-INDUCED
GASTRIC MUCOSAL LESIONS IN RATS
(Siti Khairuddin) .................................................................................................. 85

SPERMATOZOA MOTILITY AND MORPHOLOGICAL RECOVERY PROCESS IN MICE
(Mus musculus) AFTER THE INDUCTION OF 2-METHOXYETHANOL
(Alfiah Hayati, Ani Devi Rahmanita, Ib Rai Pidada) ........................................... 90

NUTRITIONAL AND IMMUNE EFFECTS OF EARLY ENTERAL FEEDING SUPPLEMENTED BY
ARGININE, GLUTAMINE AND OMEGA 3 FATTY ACID IN CRITICALLY ILL PATIENTS
(Nancy Margarita Rehatra) .................................................................................. 96

THE COMPARISON OF THE EFFECTIVENESS
BETWEEN 2.5% POVIDONE-IODINE EYE DROP AND 3% TETRACYCLINE EYE OINTMENT
ON BACTERIAL OPHTHALMIA NEONATORUM PROPHYLAXIS
(Humaidah Ali and Retno Sulistio) ................................................................. 102

THE EFFECTIVENESS TEST OF EYEDROP LODOXAMIDE TROMETHAMINE 0.1 %
AND SODIUM CROMOGLYCATE 2% IN VERNAL KERATOCONJUNCTIVITY
IN DR. SOETOMO HOSPITAL, SURABAYA
(Sanjana Budiono) .............................................................................................. 108

RISK FACTORS OF SYMPTOMATIC AND ASYMPTOMATIC OSTEARTHRITIS OF THE KNEE
(Joino Sososoro, Leo Elia F Dans, Maria Lourdes Ambarillo, Gita Santos) .............. 118

BRAIN Natriuretic Peptide AS AN INDICATOR OF LEFT VENTRICULAR DYSFUNCTION
AND A PREDICTOR OF CARDIOVASCULAR EVENTS IN ACUTE CORONARY SYNDROMES
(Nugroho and M. Yogiaro) .................................................................................... 130

MANAGEMENT OF PERIOPERATIVE PULMONARY EDEMA IN PATIENT
WITH PRE-ECLAMPSIA/ECLAMPSIA UNDERGOING C-SECTION
(Sni Wahjonoegiarti) ............................................................................................ 138

WATER SOURCE AS THE RISK FACTOR OF H. pylori INFECTION IN CHILDREN
AGED 0 - 5 YEARS IN SUBURBAN AREA OF SURAKARTA
(S. Subagyo) ......................................................................................................... 142

CLINICAL-EPIEDEMILOGICAL DATA ON HIV/AIDS PATIENTS ADMITTED
TO A TOP REFERRAL HOSPITAL DURING 1997-2005. A DATABASE FOR ACTION
IN THE FUTURE, REFERRING TO ANOTHER DEVELOPING COUNTRIES
(Suharto) ................................................................................................................ 149

Review Article and Clinical Experience:
NEW INSIGHTS INTO ORAL AGENTS IN THE TREATMENT OF T2DM
(THES ROLES OF FIXED-DOSE ORAL AGENTS COMBINATION)
(Askander Tjokroprawira) .................................................................................... 159

Literature Review:
CHOOSING A PROSTHETIC HEART VALVE
(Iwan N Boestan and Dyana Sarvesti) ............................................................. 169

Abstracts .................................................................................................................. 182

Published by :
AIRLANGGA UNIVERSITY SCHOOL OF MEDICINE
Accredited no. 39/DIKTI/Ke/Kep/2004

Folia Medica Indonesiana Vol. 41 No. 2 Page 83-185 Apr – Jun 2005 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>EDITORIAL Vol 41 No 2 2005</td>
<td>83 - 83</td>
</tr>
<tr>
<td>2</td>
<td>OPINION: BIOETHICS. ITS ROLE IN RESEARCH</td>
<td>84 - 84</td>
</tr>
<tr>
<td>3</td>
<td>Gastroprotective Effect of Curcumine on Ethanol-Induced Gastric Mucosal Lesions in Rats</td>
<td>85 - 89</td>
</tr>
<tr>
<td>4</td>
<td>Spermatozoa Motility and Morphological Recovery Process in Mice (Mus musculus) after the Induction of 2-Methoxyethanol</td>
<td>90 - 95</td>
</tr>
<tr>
<td>5</td>
<td>Nutritional and Immune Effects of Early Enteral Feeding Supplemented by Arginine, Glutamine and Omega 3 Fatty Acid in Critically Ill Patients</td>
<td>96 - 101</td>
</tr>
<tr>
<td>6</td>
<td>The Comparison of the Effectiveness between 2.5% Povidone-Iodine Eye Drop and 1% Tetracycline Eye Ointment on Bacterial Ophthalmia Neonatorum Prophylaxis</td>
<td>102 - 107</td>
</tr>
<tr>
<td>7</td>
<td>The Effectiveness Test of Eyedrop Lodoxamide Tromethamine 0.1 % and Sodium Cromoglycate 2% in Vernal Keratoconjunctivity in Dr. Soetomo Hospital, Surabaya</td>
<td>108 - 117</td>
</tr>
<tr>
<td>8</td>
<td>Risk Factors of Symptomatic and Asymptomatic Osteoarthritis of the Knee</td>
<td>118 - 129</td>
</tr>
<tr>
<td>9</td>
<td>Brain Natriuretic Peptide as an Indicator of Left Ventricle Dysfunction and a Predictor of Cardiovascular Events in Acute Coronary Syndromes</td>
<td>130 - 137</td>
</tr>
<tr>
<td>10</td>
<td>Management of Perioperative Pulmonary Edema in Patient with Pre-Eclampsia/Eclampsia Undergoing C-Section</td>
<td>138 - 141</td>
</tr>
<tr>
<td>11</td>
<td>Water Source as the Risk Factor of H. Pylori Infection in Chidren Aged 0 - 5 Years in Suburban Area of Surakarta</td>
<td>142 - 148</td>
</tr>
<tr>
<td>12</td>
<td>Clinical–Epidemiological Data on HIV/AIDS Patients Admitted to a Top Referral Hospital During 1997-2005. A Database for Action in the Future, Referring to Another Developing Countries</td>
<td>149 - 158</td>
</tr>
<tr>
<td>13</td>
<td>Review Article and Clinical Experience: New Insights Into Oral Agents in the Treatment of T2DM (The Roles of Fixed-Dose Oral Agents Combination)</td>
<td>159 - 168</td>
</tr>
<tr>
<td>14</td>
<td>Literature Review: Choosing a Prosthetic Heart Valve</td>
<td>169 - 181</td>
</tr>
</tbody>
</table>
Brain Natriuretic Peptide as an Indicator of Left Ventricle Dysfunction and a Predictor of Cardiovascular Events in Acute Coronary Syndromes

Brain Natriuretic Peptide as an Indicator of Left Ventricle Dysfunction and a Predictor of Cardiovascular Events in Acute Coronary Syndromes

1. Nugroho --> Department of Cardiology Airlangga University School of Medicine Dr Soetomo Teaching Hospital, Surabaya
2. M. Yogiarto --> Department of Cardiology Airlangga University School of Medicine Dr Soetomo Teaching Hospital, Surabaya

Abstract

Background: Acute coronary syndromes can cause systolic and diastolic left ventricle (LV) dysfunction. Determination of LV dysfunction in ACS provides benefit to stratification and optimizing therapy. Brain Natriuretic Peptide (BNP) is secreted primarily from and synthesized in left ventricle in response to increased myocardial stretch. BNP increase in heart failure. BNP increase in the 24 hours in acute myocardial infarction. We hypothesized that BNP level could be as an indicator of systolic and diastolic dysfunction and a predictor of cardiovascular events in acute coronary syndromes. Objective: To investigate plasma level of BNP in systolic and diastolic dysfunction in acute coronary syndromes hospitalized to ICCU. To investigate plasma level of BNP as a predictor of cardiovascular events in acute coronary syndromes. Method and Result: We measured BNP in plasma specimen obtained 3 days after the onset of ischemic symptoms in 25 patients of acute coronary syndromes and prospectively followed the patients for 30 days. Patients diagnosed with evidence of systolic LV dysfunction had a mean BNP concentration of 301.11 ± 189.62 pg/ml, higher than those patients with normal LV function (42.67 ± 22.44 pg/ml, p = 0.003). Patients diagnosed with evidence of diastolic LV dysfunction had a mean BNP concentration of 273.70 ± 146.27 pg/ml, higher than those patients with normal LV function (42.67 ± 22.44 pg/ml, p = 0.006). Patients with cardiovascular events had a mean BNP concentration of 392.30 ± 157.14 pg/ml, higher than patients without cardiovascular events (118.67 ± 78.53 pg/ml, p < 0.0001). In patients with cardiovascular events, minimum plasma BNP level (248 pg/ml) was higher than maximum plasma BNP level in patients without cardiovascular events (234 pg/mL). Conclusion: Plasma BNP level can reliably detect the presence of diastolic or systolic LV dysfunction on echocardiography in acute coronary syndromes. Moreover, plasma BNP level can also predict patients with cardiovascular events in 30-days after acute coronary syndromes.

Keyword : BNP, Left, ventricle, dysfunction, cardiovascular, events, acute, coronary, syndromes,

Daftar Pustaka :