FOLIA MEDICA INDONESIANA

Vol. 43 No. 1 January - March 2007

SERUM p53 PROTEIN AND TOTAL LYMPHOCYTE PROFILE IN SEPSIS PATIENTS TREATED WITH CIPROFLOXACIN AND CEFOTAXIME
(Agus Yudho Santoso, Nasronudin, Eddy Soeawandojo)

EFFECT OF LORANTHACEAE DAENORDROPHOES SPECIES INFUSION ON SERUM TRANSAMINASE LEVEL AND HEPATIC NECROSIS IN RATS
(Arifa Mustika, Roostantia Indrawati, Ratna Sofarnia Munir)

GLUCOSE 6 PHOSPHATE DEHYDROGENASE (G6PD) DEFICIENCY IN BAD PREGNANCY HISTORY IN ST. VINCENCIUS A PAULO CATHOLIC HOSPITAL, SURABAYA
(Suhartati, Tri Martini Soemarno, Harsono Notopuro, Heru Santos)

HEPARIN EFFECT ON VEGF AND EGFR AFTER DEEP SECOND AND THIRD DEGREE BURNS IN RATTUS NOVERGICUS STRAIN WISTAR
(Ruby Riana A, David S Perdanaakusuma)

EXAMINATION OF OXLDL SERUM LEVEL AS THE PROGNOSIS OF ACUTE THROMBOTIC ISCHEMIC STROKE
(Bertha J Amaheka, Moh. Hasan Machfoed, Suharto Taat Putra)

MENTAL CHANGES IN PARKINSON’S DISEASE
A Study of Fifty Patients
(Tayseer M Zein, Zein Mirghani)

MICROSCOPIC PICTURE AND WATER CONTENT IN DENTIN ANALYSIS OF BONDING AGENT BOND TO DENTIN SURFACE
An Evaluation of Various Humidity
(Adiorn Soetojo)

LOCALIZATION OF PLASMODIUM FALCIPARUM ASEXUAL STAGE ANTIGEN BY MOUSE IMMUNE SERA
(Heny Anwati et al.)

DESCRIPTION OF URINARY RETENTION IN WOMEN
A Retrospective Study in Dr Soetomo Hospital Surabaya
(Soetojo)

Review Article:
THE Potential INTERVENTION ON APOPTOSIS AND CELL CYCLE ACTIVITY IN RHEUMATOID ARTHRITIS
(Joewono Soeroso)

Review Article:
THE ROLE OF MICROGLIA AS PRIME COMPONENT OF CNS IMMUNE SYSTEM IN ACUTE AND CHRONIC NEUROINFLAMMATION
(Nyoman Golden, Sajid Darmadipura)

Review Article and Clinical Experience:
A NOVEL "TWO-IN-ONE" DRUG FIXED COMBINATION OF ROS AND MET
Its Roles on IR, Prediabetes, MetS, T2DM and CVD
(Askandar Tjokroprawiro)
### Table of Contents

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Serum P53 Protein and Total Lymphocyte Profile in Sepsis Patients Treated with Ciprofloxacin and Cefotaxime</td>
<td>1 - 6</td>
</tr>
<tr>
<td>2</td>
<td>Effect of Loranthaceae Daendropthoe Species Infusion on Serum Transaminase Level and Hepatic Necrosis in Rats</td>
<td>7 - 12</td>
</tr>
<tr>
<td>3</td>
<td>Glucose 6 Phosphate Dehydrogenase (G6PD) Deficiency in Bad Pregnancy History in St. Vincentius A Paulo Catholic Hospital, Surabaya</td>
<td>13 - 18</td>
</tr>
<tr>
<td>4</td>
<td>Heparin Effect on VEGF and EGFR After Deep Second and Third Degree Burns in Rattus Novergicus Strain Wistar</td>
<td>19 - 22</td>
</tr>
<tr>
<td>5</td>
<td>Examination of OXLDL Serum Level as The Prognosis of Acute Thrombotic Ischemic Stroke</td>
<td>23 - 27</td>
</tr>
<tr>
<td>6</td>
<td>Mental Changes in Parkinson's Disease A Study of Fifty Patients</td>
<td>28 - 31</td>
</tr>
<tr>
<td>7</td>
<td>Microscopic Picture and Water Content in Dentin Analysis of Bonding Agent Bond to Dentin Surface an Evaluation of Various Humidity</td>
<td>32 - 38</td>
</tr>
<tr>
<td>8</td>
<td>Localization of Plasmodium Falciparum Asexual Stage Antigen by Mouse Immune Sera</td>
<td>39 - 43</td>
</tr>
<tr>
<td>9</td>
<td>Description of Urinary Retention in Women A Retrospective Study in Dr Soetomo Hospital Surabaya</td>
<td>44 - 48</td>
</tr>
<tr>
<td>10</td>
<td>Review Article: The Potential Intervention on Apoptosis and Cell Cycle Activity in Rheumatoid Arthritis</td>
<td>49 - 53</td>
</tr>
<tr>
<td>11</td>
<td>Review Article: The Role of Microglia as Prime Component of CNS Immune System in Acute and Chronic Neuroinflammation</td>
<td>54 - 58</td>
</tr>
<tr>
<td>12</td>
<td>Review Article and Clinical Experience: A Novel Two-In-One Drug Fixed Combination of Ros and Met its Roles on Ir, Prediabetes, Mets, T2dm And CVD</td>
<td>59 - 63</td>
</tr>
</tbody>
</table>
Heparin Effect on VEGF and EGFR After Deep Second and Third Degree Burns in Rattus Noverus Strain Wistar

Abstract

The objective of this study was to study the effect of heparin on angiogenesis and epithelialization acceleration. The design of this study was experimental. This study used forty eight rats randomly divided into four groups. A group of deep second degree burns and a group of third degree burns were each divided into two groups, experimental and control groups. The experimental group was divided into 2, both treated with 1 ml heparin 100 IU/kg and saline solution injected beneath the burnt skin once daily, in which 1 group received it for 5 days while other up to 10 days. The control group was divided into 2, both treated with 1 ml saline solution injected beneath the burnt skin once daily, in which 1 group received it for 5 days while other up to 10 days. Observation was done at fifth and tenth day. Parameter of angiogenesis was VEGF count. Parameter of epithelialization acceleration was EGFR count. VEGF and EGFR counts were evaluated with immunohistochemistry. Results showed a significant difference was found between VEGF in control and treatment groups demonstrated by considerably increased VEGF count in the treatment groups. There was a significant difference in EGFR in control group compared to that in treatment group with evidence of considerably greater EGFR count in treatment group. A significant difference was found between VEGF and EGFR in deep second degree burns and those in third degree burns, demonstrated by considerably increased VEGF and EGFR count in the latter. There was no significant difference between VEGF and EGFR counts on day 5 and day 10. In conclusion, subcutaneous injection of heparin could promote VEGF and EGFR counts by means of promoting angiogenesis and epithelialization acceleration resulting in wound healing acceleration.

Keyword : Heparin, burn, angiogenesis, epithelialization, ,

Daftar Pustaka :

17. **L Galvan, (1996).** Effects of heparin on wound healing. no info : Journal Wound Ostomy Continence Nursing
18. **PM Glat, (1997).** Wound healing. Philadelphia : Lippincott-Raven Publisher
20. **RV Iozzo, (2001).** Heparan sulfate proteoglycans: heavy hitters in the angiogenesis arena. no info : Journal Clinical Investigation