TGF-1 AS THE TRIGGER OF PULP FIBROBLAST PROLIFERATION
(Sri Kurniati)

DIFFERENCE IN CYCLOOXYGENASE-2 (COX-2) EXPRESSION BETWEEN LOW AND HIGH GRADE PAPILLARY CARCINOMA IN HUMAN BLADDER CANCER
(Yulizar DR, Hartijowijoto S, Djatisoekarto W, Soemarno T)

DETECTION OF CYTOKERATIN 19 MRNA IN BLOOD AS AN EARLY MARKER OF MICROMETASTATIC TUMOR CELLS OF NASOPHARYNGEAL CARCINOMA PATIENTS IN SURABAYA
(Harianto Notopuro, Widodo A Kestjono, Retna Handajani, Francisca Notopuro)

PCR TECHNIQUE DETECTION OF CHLAMYDIA TRACHOMATIS DNA BAND USING SILVER NITRATE STAINING
(Rebekah J Setiabudi, Manik Retno W, Nurul Wiqoyan)

CHANGE OF CD4 COUNT, HSP70 AND ANTI-HSP70 LEVELS IN HIV PATIENTS
(Nasrunudin)

HIV/AIDS PREVALENCE IN SURABAYA, INDONESIA
(Nasrunudin, Yayuk Sisilawati, Atika)

TREATMENT RESPONSE AND ACUTE TOXICITY EVALUATION OF 70 GRAY RADIATION IN NASOPHARYNGEAL CARCINOMA PATIENTS IN DR SOETOMO HOSPITAL, SURABAYA
(Nyoman Satya, H. Sugianto Switodihardjo)

PHARMACODYNAMIC EFFECTS OF LIGUSTROSIDE GLYCOSIDE (A CNS ACTIVE SUBSTANCE) ISOLATED FROM FRAXINUS GRAFFITHII Clarke AGAINST CHEMICALLY INDUCED SEIZURES ON MICE
(Achmad Basri)

MANAGEMENT OF ACUTE GLOMERULONEPHRITIS IN A CHILD WITH ISCHEMIC STROKE AND HYPERTENSIVE CRISIS
(Prastiya Indra Gunawan, Ninik Asmaningsih Soemiarso, Muhammad Sjaifullah Noer, Darto Saharsa)

EFFICACY OF ORLISTAT PLUS DIET COMPARED TO DIET ALONE IN REDUCING BODY WEIGHT AND BODY MASS INDEX
(Hadiq Firdausi)

Review Article:
PATHOGENESIS OF REPEATED ABORTION IN POLYCYSTIC OVARIAN SYNDROME (PCOS)
(Ansariat Wiyasa IW)

Review Article:
PROTEIN CALORIE MALNUTRITION AND IMMUNE RESPONSE IN CHILDREN
(Roedhi Irawan)

Review Article and Clinical Experience:
VARENICLINE (CHAMPIX®): A BREAKTHROUGH FOR SMOKING CESSATION TREATMENT
An α4β2 Nicotinic Acetylcholine Receptor Partial Agonist
(Askandar Tjokroprawiro)
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TGF-β1 AS THE TRIGGER OF PULP FIBROBLAST PROLIFERATION</td>
<td>67-70</td>
</tr>
<tr>
<td>2</td>
<td>DIFFERENCE IN CYCLOOXYGENASE-2 (COX-2) EXPRESSION BETWEEN LOW AND HIGH GRADE PAPILLARY CARCINOMA IN HUMAN BLADDER CANCER</td>
<td>71-75</td>
</tr>
<tr>
<td>3</td>
<td>DETECTION OF CYTOKERATIN 19 MRNA IN BLOOD AS AN EARLY MARKER OF MICROMETASTATIC TUMOR CELLS OF NASOPHARYNGEAL CARCINOMA PATIENTS IN SURABAYA</td>
<td>76-81</td>
</tr>
<tr>
<td>4</td>
<td>PCR Technique Detection of Chlamydia Trachomatis DNA Band Using Silver Nitrate Staining</td>
<td>82-85</td>
</tr>
<tr>
<td>5</td>
<td>Change of Cd4 Count, Hsp70 and Anti-Hsp70 Levels in Hiv Patients</td>
<td>86-92</td>
</tr>
<tr>
<td>6</td>
<td>HIV/AIDS PREVALENCE IN SURABAYA, INDONESIA</td>
<td>93-97</td>
</tr>
<tr>
<td>7</td>
<td>Treatment Response and Acute Toxicity Evaluation of 70 Gray Radiation in Nasopharyngeal Carcinoma Patients in Dr Soetomo Hospital, Surabaya</td>
<td>98-101</td>
</tr>
<tr>
<td>8</td>
<td>Pharmacodynamic Effects of Ligustroside Glycoside (A Cns Active Substance) Isolated from Fraxinus Graffithii Clarke Against Chemically Induced Seizures on Mice</td>
<td>102-106</td>
</tr>
<tr>
<td>9</td>
<td>Management of Acute Glomerulonephritis in A Child with Ischemic Stroke and Hypertensive Crisis</td>
<td>107-110</td>
</tr>
<tr>
<td>10</td>
<td>Efficacy of Orlistat Plus Diet Compared to Diet Alone in Reducing Body Weight and Body Mass Index</td>
<td>111-114</td>
</tr>
<tr>
<td>11</td>
<td>Review Article: Pathogenesis of Repeated Abortion in Polycystic Ovarian Syndrome (Pcos)</td>
<td>115-118</td>
</tr>
<tr>
<td>12</td>
<td>Review Article: Protein Calorie Malnutrition and Immune Response in Children</td>
<td>119-126</td>
</tr>
<tr>
<td>13</td>
<td>Review Article and Clinical Experience: VARENICLINE (CHAMPIX®) : A BREAKTHROUGH FOR SMOKING CESSATION TREATMENT (An Ï-4Å¥2 Nicotinic Acetylcholine Receptor Partial Agonist)</td>
<td>127-131</td>
</tr>
</tbody>
</table>
Pharmacodynamic Effects of Ligustroside Glycoside (A CNS Active Substance) Isolated from Fraxinus Graffithii Clarke Against Chemically Induced Seizures on Mice

Pharmacodynamic Effects of Ligustroside Glycoside (A CNS Active Substance) Isolated from Fraxinus Graffithii Clarke Against Chemically Induced Seizures on Mice

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Abstract

A study was conducted to prove whether ligustroside (A CNS Active substance) isolated from bark of Fraxinus Graffithii Clarke has antiseizure effects against chemically induced seizure. Antiseizure test indicated that ligustroside increased seizure threshold on epileptic animals injected by CD90 metrazol i.p. (ED50 anti Met : 278.54 mg/kg BW), CD90 bicuculline (ED50 anti Bicuc : 424.57 mg/kg BW), and CD90 picrotoxin (ED50 anti Picro : 466.53 mg/kg BW). These experiments also reported that ligustroside decreased metrazol lethality test on animals. The capability of ligustroside to increase seizure threshold against anti metrazol test, anti bicuculline test, and anti picrotoxin test, meant that ligustroside may have antiseizure effects by increasing GABA-facilitated inhibition in CNS through interaction with benzodiazepine receptor of GABA-BZD-BARB/PICRO-CL receptor complexes. It is strongly supposed that clinically ligustroside would be active against absence seizures and myoclonic seizures. Further research will be needed to explore interaction between ligustroside and GABA-BZD-BARB/PICRO-CL receptor complex.

Keyword : ligustroside, chemically, induced, seizure, antiseizure, effect,

Daftar Pustaka :