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IN VITRO INTRAERYTHROCYTIC ANTIMALARIAL ACTIVITY OF AKAR KUNING (Arcangelisia flava (L.) Merr.) STEM AQUEOUS EXTRACT IN Plasmodium falciparum (Eric Robheits Lovin, Heny Anwati, Ramadhani RB)

IN VITRO ANTIMALARIAL ACTIVITY OF BELIMBING WULUH (Averrhoa Bilimbi) LEAVES EXTRACT ON Plasmodium falciparum (Eka Prasetya Budi Mulia, Indah S. Tantular, Abdul Mughni)

EFFECT OF EARTHWORMS (Lumbricus Sp.) EXTRACT ANTIBACTERIAL ACTIVITY AGAINST THE BACTERIA Salmonella Typhi (Imannita Septianda, Kartuti Debora, Maftuchah Rochmanti)

IN VITRO ANTIBACTERIAL ACTIVITIES OF COMMERCIAL PROBIOTIC DRINKS AGAINST Salmonella typhi (Erien Pradyta, Yuani Setiawati, Priyo Budi Purwono)

ESSENTIAL OIL EXTRACT OF Citrus Aurantifolia L. HAS BETTER ANTIBACTERIAL EFFECT THAN SULFUR TOWARDS Staphylococcus epidermidis (Jeffery Ali Nurdin, Ratna Sofaria Munir, Rebekah Juniati Setiabudi)

BENZALKONIUM CHLORIDE AND PINE OIL-CONTAINING CLEANING FLUID IS NOT EFFECTIVE AGAINST Pseudomonas Aeruginosa (Lembah Sulistyaningsih, Eko Budi Koendhori, Ramadhani)

MRSA-CARRIER DETECTION IN SEMESTER-1 STUDENTS OF MEDICAL DOCTOR PROGRAM, FACULTY OF MEDICINE, AIRLANGGA UNIVERSITY, SURABAYA, CLASS 2009 (N Sa’diyah AP, Eko Budi Koendhori, Deby Kusumaningrum)

PRETERM BIRTH AND THE AFFECTING FACTORS IN DR. SOETOMO HOSPITAL, SURABAYA, INDONESIA (Made Bayu Agastia Raketea, Nadir Abdullah, Martono Tri Utomo)

EFFECT OF TYPE-2 DIABETES MELLITUS ON CATARACT INCIDENCE RATE AT OPHTHALMOLOGY OUTPATIENT CLINIC, DR SOETOMO HOSPITAL, SURABAYA (Lukta Pradhevi, Moegiono, Atika)
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IN VITRO INTRAERYTHROCYTIC ANTIMALARIAL ACTIVITY OF AKAR KUNING (Arcangelisia flava (L.) Merr.) STEM AQUEOUS EXTRACT IN Plasmodium falciparum</td>
<td>90 - 95</td>
</tr>
<tr>
<td>2</td>
<td>IN VITRO ANTIMALARIAL ACTIVITY OF BELIMBING WULUH (Averrhoa Bilimbi) LEAVES EXTRACT ON Plasmodium falciparum</td>
<td>96 - 101</td>
</tr>
<tr>
<td>3</td>
<td>EFFECT OF EARTHWORMS (Lumbricus Sp.) EXTRACT ANTIBACTERIAL ACTIVITY AGAINST THE BACTERIA Salmonella Typhii</td>
<td>102 - 108</td>
</tr>
<tr>
<td>4</td>
<td>IN VITRO ANTIBACTERIAL ACTIVITIES OF COMMERCIAL PROBIOTIC DRINKS AGAINST Salmonella typhii</td>
<td>109 - 114</td>
</tr>
<tr>
<td>5</td>
<td>ESSENTIAL OIL EXTRACT OF Citrus Aurantifolia L. HAS BETTER ANTIBACTERIAL EFFECT THAN SULFUR TOWARDS Staphylococcus epidermidis</td>
<td>115 - 120</td>
</tr>
<tr>
<td>6</td>
<td>BENZALKONIUM CHLORIDE AND PINE OIL-CONTAINING CLEANING FLUID IS NOT EFFECTIVE AGAINST Pseudomonas Aeruginosa</td>
<td>121 - 125</td>
</tr>
<tr>
<td>7</td>
<td>MRSA-CARRIER DETECTION IN SEMESTER-1 STUDENTS OF MEDICAL DOCTOR PROGRAM, FACULTY OF MEDICINE, AIRLANGGA UNIVERSITY, SURABAYA, CLASS 2009</td>
<td>126 - 130</td>
</tr>
<tr>
<td>8</td>
<td>PRETERM BIRTH AND THE AFFECTING FACTORS IN DR. SOETOMO HOSPITAL, SURABAYA, INDONESIA</td>
<td>131 - 136</td>
</tr>
<tr>
<td>9</td>
<td>EFFECT OF TYPE-2 DIABETES MELLITUS ON CATARACT INCIDENCE RATE AT OPHTHALMOLOGY OUTPATIENT CLINIC, DR SOETOMO HOSPITAL, SURABAYA</td>
<td>137 - 143</td>
</tr>
</tbody>
</table>
EFFECT OF TYPE-2 DIABETES MELLITUS ON CATARACT INCIDENCE RATE AT
OPHTHALMOLOGY OUTPATIENT CLINIC, DR SOETOMO HOSPITAL,
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Abstract

Diabetes mellitus has been reported as the most critical factor causing visual loss. Diabetes mellitus is also known as an
important risk factor for cataracts. Diabetes induces cataract through the sorbitol pathway. Patients with diabetic
background will have bigger chance to occur cataract in younger age than patients without diabetic background. The
purpose of this study was performed to analyze the correlations between type 2 diabetes mellitus and the age of cataract
appearance. This study was a case control study. Ninety six cataract patients at outpatient unit of Eye in Dr. Soetomo
Hospital underwent ophthalmologic evaluation were studied retrospectively. Cataract patients were classified into a
diabetic group (case group) and control group (i.e. a group without diabetes). Sample size was taken using total sampling
case group and random sampling for control group, in the period of January – July 2011. Data were collected by
using secondary data i.e. patient’s medical record. Data were analyzed descriptively using cross-tabulation and
analytically using Mann-Whitney test and Spearman Correlation test. Risk factor like sex, age, and duration of diabetes (in
case group) were also observed. Females were more common in both groups. The mean age of cataract appearance in
diabetic group was younger than control group. Immature cataract was most common type of cataract in both groups. The
mean duration of diabetes in diabetic group was 80.67 months. Mann-Whitney test revealed that age of cataract
occurrence in diabetic group was significantly differ (p = 0.000) with control group. Spearman correlation analysis showed
that there was no significant correlation between duration of diabetes and the age of cataract occurrence (p= 0.964, with
coefficient of correlation = -0.007). In conclusion, Type 2 diabetes mellitus was significantly related to the age of cataract
occurrence. This finding indicated that diabetes can accelerate the occurrence of cataract. (FMI 2012;48:137-143)

Keyword : type, 2, diabetes, mellitus, cataract, the, age, of, cataract, occurrence,

Daftar Pustaka :
histological study of human cataract lens. - : J Anat Soc India