Editorial .................................................................................................................. 258

Opinion:
TREND OF INDONESIAN NURSE’S ROLE IN THE FUTURE
(Nursalam) .............................................................................................................. 259

EOSINOPHILIA IN PHYSICAL EXERCISE STRESSOR:
PATHOBIOLOGY OR PHYSIOBIOLOGY?
(Sunarko Setyawati) .................................................................................................. 261

THE DETECTION OF Staphylococcus aureus IN SWIFTLETS’ NEST USING
IMMUNOHISTOCHEMISTRY (STREPTAVIDIN BIOTIN)
(Ratno Oktovina, Soedarmanto Incarjulianto, Sitarini Widyarini, Hastari Wuryastuti, R. Wasito) 266

THE ROLE OF INTRAVENOUS N-ACETYLCYSTEINE REDUCES PULSE PRESSURE
IN PATIENTS WITH CHRONIC KIDNEY DISEASE STAGE 5 DURING HEMODIALYSIS.
A RANDOMIZED BLINDED TRIAL
(Mohammad Yogiantoro) ............................................................................................ 270

LOW FAT MILK V/S LOW LACTOSE MILK FOR PATIENTS WITH DIFFERENT NUTRITIONAL
STATUS WHO SUFFERED FROM ACUTE DIARRHEA
(Siti Nurul Hidayati, Roedli Irawan, Boerhan Hidayat) .............................................. 277

THYMI DILATE SYNTHASE POLYMORPHISMS IN INDONESIAN CHILDHOOD ACUTE
LYMPHOBLASTIC LEUKEMIA
(IDG Ugresna et al) .................................................................................................... 281

MODULATION OF IMMUNE RESPONSE IN LONG-TERM USE OF INHALED CORTICOSTEROID
IN CHILDHOOD ASTHMA RECEIVING SPECIFIC IMMUNOTHERAPY
(Ariyanto Harsono) .................................................................................................. 291

SYSTEMIC LUPUS ERYTHEMATOSUS ASSOCIATED WITH CHOLESTATIC HEPATITIS
IN A CHILD. A CASE REPORT
(Zehrah Nirmah, Ariyanto Harsono) .......................................................................... 299

Review Article and Clinical Experience:
PREVENTIVE AND THERAPEUTIC STRATEGIES FOR OSTEOPOROSIS
(A HIGHLY EFFICACIOUS RISEDRONATE-35MG ONCE WEEKLY)
(Askandor Tjokroprawiro) .......................................................................................... 306

IMMUNOLOGICAL ASPECT ON BONE CELLS
(Viskasari Pintoko Kalanjati) ....................................................................................... 313

THREE DIMENSION DECISION FOR STATISTICAL TESTING. THE SIGNIFICANCE OF
TRADITIONAL MEDICINE HOLISTIC APPROACH (A PRELIMINARY IDEA)
(Haryadi Suparto, Mohamad Setyo Pramono) ........................................................... 320

TOTAL QUALITY MANAGEMENT (TQM). THE BEST METHOD TO ELIMINATE NARCOTICS
AND PSYCHOTROPICS ABUSE AND ILLEGAL DISTRIBUTION
(Sugin) ....................................................................................................................... 327

Abstracts .................................................................................................................... 330

Published by :
Airlangga University School of Medicine
Accredited no. 39/DIKTI/Kep/2004
International Online Distribution by ProQuest®
www.proquest.com

Folia Medica
Indonesiana Vol. 41 No. 4 Page 258-333 Oct - Dec 2005 ISSN 0303-7932
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EDITORIAL Vol 41 No 4 2005</td>
<td>258 - 258</td>
</tr>
<tr>
<td>2</td>
<td>OPINION: TREND OF INDONESIAN NURSE’S ROLE IN THE FUTURE</td>
<td>259 - 260</td>
</tr>
<tr>
<td>3</td>
<td>Eosinophilia in Physical Exercise Stressor: Pathobiology or Physiobiology?</td>
<td>261 - 265</td>
</tr>
<tr>
<td>4</td>
<td>The Detection of Staphylococcus aureus in Swiftlets' Nest Using Immunohistochemistry (Streptavidin Biotin)</td>
<td>266 - 269</td>
</tr>
<tr>
<td>5</td>
<td>The Role of Intravenous N-Acetylcysteine Reduces Pulse Pressure in Patients with Chronic Kidney Disease Stage 5 during Hemodialysis. A Randomized Blinded Trial</td>
<td>270 - 276</td>
</tr>
<tr>
<td>6</td>
<td>Low Fat Milk v/s Low Lactose Milk for Patients with Different Nutritional Status who Suffered from Acute Diarrhea</td>
<td>277 - 280</td>
</tr>
<tr>
<td>7</td>
<td>Thymidilate Synthase Polymorphisms in Indonesian Childhood Acute Lymphoblastic Leukemia</td>
<td>281 - 290</td>
</tr>
<tr>
<td>8</td>
<td>Modulation of Immune Response in Long-Term Use of Inhaled Corticosteroid in Childhood Asthma Receiving Specific Immunotherapy</td>
<td>291 - 298</td>
</tr>
<tr>
<td>9</td>
<td>Systemic Lupus Erythematosus Associated with Cholestatic Hepatitis in a Child. A Case Report</td>
<td>299 - 305</td>
</tr>
<tr>
<td>10</td>
<td>Review Article and Clinical Experience: Preventive and Therapeutic Strategies for Osteoporosis (A Highly Efficacious Risedronate-35 mg Once Weekly)</td>
<td>306 - 312</td>
</tr>
<tr>
<td>11</td>
<td>Immunological Aspect on Bone Cells</td>
<td>313 - 319</td>
</tr>
<tr>
<td>12</td>
<td>Three Dimension Decision for Statistical Testing. The Significance of Traditional Medicine Holistic Approach (A Preliminary Idea)</td>
<td>320 - 326</td>
</tr>
<tr>
<td>13</td>
<td>Total Quality Management (TQM), The Best Method to Eliminate Narcotics and Psychotropics Abuse and Illegal Distribution</td>
<td>327 - 329</td>
</tr>
</tbody>
</table>
Modulation of Immune Response in Long-Term Use of Inhaled Corticosteroid in Childhood Asthma Receiving Specific Immunotherapy

Ariyanto Harsono -- Department of Child Health Airlangga University School of Medicine Dr Soetomo Teaching Hospital, Surabaya

Abstract

Background: Inhaled corticosteroid is widely used in the management of mild to moderate persistent asthma including those receiving specific immunotherapy. Immunological mechanism underlie the improvement until now has not fully elucidated. Objective: To elucidate the modulation of immune response in long-term use of corticosteroid inhalation in asthmatic children receiving specific immunotherapy. Materials and Methods: Parents signed informed consent after receiving information of the study prior to enrollment. Randomization was done using "systematic random sampling". Patients were divided into three groups: group A receiving inhaled budesonide, group B receiving specific immunotherapy, and Group C receiving both specific immunotherapy and inhaled budesonide. Patients aged 6-16 years received either inhaled budesonide or specific immunotherapy for 3 months. The daily budesonide dose was 400 mg for children aged 6-11 years or 200 mg for children younger than 11 years. The primary outcome was IL-4, IL-5, IFN-γ, and IL-2 and FEV-1 reversibility. Ethical Committee of Dr. Soetomo Hospital Surabaya approved ethical clearance. Results: Significant differences were observed between pre and post treatment in all group (p<0.05). Patients receiving inhaled corticosteroid and immunotherapy showed attenuation of IL-4 and IL-5, elevation of IFN-γ and IL-2, and improvement of FEV-1 reversibility. Analysis of discriminant yielded IL-2 as primary discriminator and correlated with the decrease of IL-5. Conclusion: Addition of inhaled corticosteroid to immunotherapy results in marked attenuation of IL-5 correlates with greater elevation of IL-2 and play an important role in the modulation of immune response resulting in the improvement of FEV-1 reversibility.

Keyword : childhood, asthma, inhaled, corticosteroid, immunotherapy, cytokine, ,

Daftar Pustaka :