

DAFTAR PUSTAKA

- A Niimi, R Amitani, K Suzuki, dkk. Serum Eosinophil Cationic Protein as a Marker of Eosinophilic Inflammation in Astma. 1998;28(2):233-40
- Afshari JT, Hosseini RF, Farhabadi SH, Heydarian F, Hossein M, Khosnavaz R, et al. 2007. Association of the Expression of IL-4 and IL-13 Genes, IL-4 and IgE Serum Levels with Allergic Asthma. *Iran J Allergy Asthma Immunol* June 2007; 6 (2): 67-72
- American Lung Association. 2012. Trends in Asthma Morbidity and Mortality. American Lung Association, Epidemiology and Statistics Unit. Diakses tanggal 18 Juni 2017. Tersedia pada <http://www.lung.com/>
- Anderson GP. 2008. Endotyping Asthma : New Insight into key Pathogenic Mechanism in a complex, Heterogenous Disease. *Lancet* 372 : 1107-1119
- Asthma Burden Report New Hampshire 2010 chapter 3 : Asthma Risk factors and Comorbidities. New Hampshire Department of health and human services division of public health services, asthma control program June 2010)
- Bae Y, Izuhara K, Ohta S, Ono J, Hong GU, Ro JY, et al. 2016. Periostin and Interleukin-13 are Independently Related to Chronic Spontaneous Urticaria. *Allergy Asthma Immunol Res.* 2016 September;8(5):457-460.
- Baratawidjaya K G. *Imunologi Dasar*. 2002. Jakarta : Balai Penerbit. Fakultas Kedokteran Universitas Indonesia.
- Barnes PJ. 2008. Immunology of asthma and chronic obstructive pulmonary disease. *Nature Publishing Group* 2008;8:183-191
- Bellamy D, Booker R, Connellan S, Halpin D. 2005. Spirometry in Practice a Practical Guide to Using Spirometry in Primary care. 2nd Edition. London. The BTS COPD Consortium
- Belda J, Leigh R, Parameswaran K, O'Byrne PM, Sears MR, Hargreave FE. 2001. Induced Sputum Cell Counts in Healthy Adults. *Am J Respir Crit Care Med* 2001; 161:475-8.
- Burchard EG, Silverman EK, Rossenwasser LJ, Borish L, Yandava C, Pillary A, et al. 1999. Association Between a Sequence Variant in the IL-4 Gene Promoter and FEV1 in Asthma. *Am J Respir Crit Care Med* 1999 Vol 160: 919-922

- Brombacher, Frank. The Role of Interleukin-13 in Infectious Diseases and Allergy. 2000:646
- Busse WW, Lemanske RF. 2001. Advances in Immunology. N Engl J Med 2001; 344: 350-62.
- Bystrom J, Amin K, Bishop-Bailey D. 2011. Analysing the eosinophil cationic protein- a clue to the function of the eosinophil granulocyte. 12(10):1-20
- Chapman P, Reyes C, Gupta V. 2010. Normal Physiological of Human Cytokines Using Bio-Plex Pro Cytokines Assay. Bio Rad Laboratorium. Cytokines Assay. Buletin 6029 Rev A
- Coates A, Tamari IE, Graham BL. 2014. Role of Spirometry in primary care. Canadian Family Physician- Le Medecin de famille Canadian, 60: 1069-1070
- ChaudhuriR, LivingstonE, McMahanAD, ThomsonL, BorlandW, ThomsonNC. Cigarette Smoking Impairs the Therapeutic Response to Oral Corticosteroids in Chronic Asthma. *Am J Respir Crit Care Med* 2003; 168: 1308–11.
- Corren J, Busse W, Meltzer EO, Mansfield L, Bensch G, Fahrenholz J, Wenzel SE, Chon Y, Dunn M, Weng HH and Lin SL. 2013. A randomized, controlled, phase 2 study of AMG 317, an IL4Ralpha antagonist, in patients with asthma. *Am J Respir Crit Care Med* 2013; 181:788-796.
- Dahlan, MS. 2010. Besar sampel dlam penelitian kedokteran dan kesehatan. Jakarta : Penerbit Salemba Medika
- Dinas Kesehatan Kota Padang. 2011. Laporan Tahunan Dinas Kesehatan Kota Padang. Padang : Dinas Kesehatan Kota Padang
- _____. 2013. Laporan Tahunan Dinas Kesehatan Kota Padang. Padang : Dinas Kesehatan Kota Padang
- _____. 2015. Laporan Tahunan Dinas Kesehatan Kota Padang. Padang : Dinas Kesehatan Kota Padang
- Dunn, Lehman, Chirchili. 2015. Impact of Age and Sex among Mild-Moderate Asthmatic. *Am J respir Crit Care Med* September 2015; volu. 192; pp 551-558
- Efren, RL., Lackie, J., 2010. Interleukin 13 Signaling and Its Role Astma. *WAO Journal* 2011; 4:54 –64
- Global Initiative for Asthma (GINA). 2012. Global Burden of Asthma. <http://www.ginasthma.com/>. Diakses 2 April 2017.

- Gour N, Wills-Karp M. 2015. IL-4 and IL-13 Signaling in Allergic Airway Disease. *Cytokines* september 2015; 75 (1): 68-78.
- Grunig G, Warnock M, Wakil AE, Venkayya R, Brombacher F, Rennick DM, Sheppard D, Mohrs M, Donaldson DD, Locksley RM and Corry DB. 2012. Requirement for IL-13 Independently of IL-4 in Experimental Asthma. *Science* 2012; 282: 2261-2263.
- Harthel C, Adam N, Strunk T, Temming P, Mullare-Steinhardt M, Schultz C. 2005. Cytokine response correlate differentially with age in infancy and early childhood. *British Society for Immunology. Clinical and Experimental Immunology.* 142: 446-453
- Holgate ST. 2000. The cellular and mediator basis of asthma in relation to natural history. *Lancet* 350 2000; (suppl II): 5-9.
- Hollander C, Sitkauskiene B, Sakalukas R, Westin U, Janciauskiene SM. 2007. Serum and Bronchial Lavage Fluid Concentration of IL8, SLPI, sCD14, and sICAM-1 in Patients with COPD and Asthma. *Respir med* 101: 1947-1953
- Hoontrakoon R, Kailey J, Bratton D. IL-4 and TNF- α synergize to enhance eosinophil survival *J Allergy Clin Immunol* 1999;103: 239-41
- Horst R, Jaeger, Smeekens SP, Oosting M, Swertz MA, Li Y, et al. 2016. Host and Environmental Factors Influencing Individual Human Cytokine Responses. *Cell* 2016 nov 3, 167 (4): 1111-1124
- Ilyas M, Yunus F, Wiyono WH, 2010. Correlation Between Asthma Control Test (ACT) and Spirometry as Tool of Assessing of Controlled Asthma. *J Respir Indo.* 30(4):190-196
- _____. 2007. The cellular and mediator basis of asthma. *Lancet* 455 2007; (suppl I): 15-19.
- James AL, Palmer LJ, Kicic E, Maxwell PS, Lagan SE, Ryan GF, Musk AW. 2006. Decline in Lung Function in the Busselton Health Study: The Effects of Asthma and Cigarette Smoking. *J AM Geriatr Soc* 2006;54;48-55
- Jatakanon A, Uasuf C, Maziak W, Lim S, Chung KF, Barnes PJ. 2000. Neutrophilic inflammation in severe persistent asthma. *Am J Respir Crit Care Med* 2000; 160: 1532-9.
- John M S, Hirst J, Jose PJ, Robichaud A, Berkman N, Witt C, Twort HC et al. Human airway smooth muscle cells express and release RANTES in response to Thelper 1 cytokines: regulation by T helper 2 cytokines and corticosteroids. *J Immunol* 1999; 158:1841-7.

- John WS, Larry B. Th2 cytokines and asthma — Interleukin-4: its role in the pathogenesis of asthma, and targeting it for asthma treatment with interleukin-4 receptor antagonists. *Respiratory Research* 2001; 2: 66-70
- Joseph J, Benedict S, Al-sowaidi S, Joseph M, Zoubeidi T. 2004. Serum Interleukin-13 are Elevated in Mild and Moderate Persistent Asthma. *The internet journal of asthma, Allergy and Immunology* 2004 volume 4 number 2
- Joseph Loscalzo, 2014. Harrison, Pulmonologi dan Penyakit Kritis, edisi 2. EGC: hal 69.
- Kaas MMC, Gerritsen J, Carlsen KH, Undlien D, Egeland T, Skinningsrud B, Tørres T, Carlsen KL. 2007. Eosinophil cationic protein (ECP) polymorphisms and association with asthma, s-ECP levels and related phenotypes. *Allergy*. 2007 Apr;62(4):429-36.
- Kau AL, Korenbial PE. 2014. Anti Interleukin 4 and 13 for Asthma Treatment in the Era of Endotypes. *Curr Opin Allergy Clin Immunol*, december 2014; 14(6): 570-575
- Kips JC, Brusselle GJ, Joos GF. Interleukin-12 inhibits antigen-induced airway hyperresponsiveness in mice. *Am J Respir Crit Care Med* 1996; 153:535–9.
- Koh GC, Shek LP, Kee J, Wee A, Ng V, Koh D. 2010. Saliva and serum eosinophil cationic protein in asthmatic children and adolescents with and without allergic sensitization. *J Asthma*. 2010 Feb;47(1):61-5. doi: 10.3109/02770900903350499
- Koh GCH, Shek LPC, Goh DYT, Bever HV, Koh DSQ. 2007. Eosinophil Cationic Protein: Is It useful in asthma? Elsevier. *Respiratory Medicine* 101; 696-705
- Khoo AL, Chai LY, Koenen HJ, Sweep FC, Joosten I, Netea MG, et al. 2011. Regulation of cytokines Responses by Seasonal of Vitamin D Status in Healthy Individuals. *Clin Exp Immunol* 2011 Apr; 164(1):72-9
- Lackie, J., Rael, EL. 2010. Interleukin 13 Signaling and Its Role Astma. *WAO Journal* 2011; 4:54 –64
- Lee CG, Homer RJ, Zhu Z, Lanone S, Wang X, et al. 2001. Interleukin-13 induces tissue fibrosis by selectively stimulating and activating transforming growth factor-B1. *J Exp Med*. 2001;194(6):809 –821.
- Lewy M. 2016. Is spirometry essential in diagnosing asthma? *British Journal of General Practice*. 2016 (9): 485

- Min C, 2013. Eosinophil-derived neurotoxin : a novel biomarker for diagnosis and monitoring of asthma. *Korean J Pediatr* 56(1):8-12
- Munitz A, Brandt EB, Mingler M, Finkelman FD, Rothenberg E. 2008. Distinct Roles for IL-13 and IL-4 via IL-13 Receptor $\alpha 1$ and the Type II IL-4 Receptor in Asthma Pathogenesis. *PNAS* may 2008; vol 105; no. 20: 7240-7245
- National Heart, Lung, and Blood Institute (NHLBI), 2002. Global Initiative For Asthma
- Niedzwiedz A, Borowicz H, Kubiak K, Nicpon J, Skrzypczak P, Jaworski Z, *et al.* 2016. Evaluation of Serum Cytokine Levels in Recurrent Airway Obstruction. *Polish Journal of Veterinary Sciences*. Vol. 19, no.4 (2016), 785-791.
- Nindia Dara Utama, 2015, Hubungan Obesitas dengan Kejadian Asma, Fakultas Kedokteran, Universitas Lampung. Link internet : jukeunila.com/wp-content/uploads/2015/11/25-30-NINDIA-DU
- Perhimpunan Dokter Paru Indonesia (PDPI). 2006. Asma Pedoman Diagnosis dan Penatalaksanaan Asma di Indonesia. Jakarta : Balai Penerbit FK-UI.
- Pignataro F.S, Bonini MS, Forgoionne A, Melandri S, Osmani OS. Asthma and Gender: The Female Lung. *Pharmacol Res*. 119 ; 384-390)
- Pukelsheim K, Stoeger T, Kutschke D, Ganguly K, Wjst M. 2010. Cytokine Profiles in Asthma Families Depend on Age and Phenotype. *Plos One*. 5(12); 2-11
- Prescott E, Lange P, Vestbo J. Effect of gender on hospital admissions for asthma and prevalence of self-reported asthma: a prospective study based on a sample of the general population. *Thorax* 1997; 52: 287-9
- Prieto, L., Guetirez, V, Uixera, S. 2002. Contributions of the study of inflammation markers in induced sputum samples to the conceptual changes in asthma. *Alergol immunol clin* 17:1-4.
- Renauld JC, 2001. New Insight into The Role of Cytokines in Asthma 54 : 577-589
- Rengganis, I. 2008. Diagnosa dan Tatalaksana Asma Bronkial, *Majalah Kedokteran Indonesia Edisi Nopember 2008*.
- Riset Kesehatan Dasar Indonesia. 2007. Laporan Riset Kesehatan Dasar (Riskesdas) Tahun 2007. Jakarta : Litbang Kemenkes

- _____. 2013. Laporan Riset Kesehatan Dasar (Riskesdas) Tahun 2013. Jakarta : Litbang Kemenkes.
- Rytilla P. 2002. Induced sputum for assessment of airway inflammations in patients with COPD, asthma and asthma like symptoms, academic disertation. Departement of Medicine Helsinki University Central Hospital, Finlandia.
- Sippel J M, Pedula KL, Vollmer WM, Buist S, Osborne ML. Associations of smoking with hospital based care and quality of life in patients with obstructive air way disease. *Chest* 1999;115:691-6
- Subbarao P, Becker A, Brokk JR et.al. 2009. Epidemiology of Asthma: Risk Factors for Development. *Expert Rev Clin Immunol* 5(1), 77-95 (2009)
- Surjanto E. 2005. Disertasi. Klasifikasi Imunologis Derajat Asma Alergi Kronik Berdasarkan IL-4, IL-5 dan Eosinophil Cationic Protein (ECP) dalam sputum. Pasca sarjana Universitas Airlangga Surabaya.
- _____. 2001. Derajat Asma dan Kontrol Asma. *J Respir Indo*. Vol. 28: 88-95
- _____. 2005. Derajat Asma Alergi Kronik Berdasarkan Interleukin (Il)-4 Dan Eosinophil Cationic Protein (ECP). Disertasi Universitas Airlangga
- Widura, 2012, Patogenesis Asthma Bronchiale, *Bagian Mikrobiologi Fakultas Kedokteran Universitas Kristen Maranatha*. Link internet : majour.maranatha.edu/index.php/jurnal-kedokteran/article/view/24/pdf
- Willa-karp M, Chiaramonte M. 2003. Interleukin-13 in Asthma. *Curr opin pulm Med* 9 (1): 21-27
- Wong T, Koh D, Wee A, V, Koh YT, Sum Z, Koh G. 2008. The effect of the cotton based collection methods on eosinophil cationic pritein (ECP) concentration detected in saliva. *Journal of Asthma and Allergy*. 2008:I 45-48
- Woschnagg, C., Rubin, J and Venge, P. 2007. Eosinophil Cationic Protein (ECP) is Processed during Secretion. *J Immunol* 2009; 183:3949-3954.
- Yiallourous PK, Lamnisis D, Kolokatroni O, Moustaki M, Middleton N, 2013. Associations of Body Fat Percent and Body Mass Index with Childhood Asthma by Age and Gender. *Journal obesity* September 2013; vol. 21: no.9
- Zahran HS, Bailey C, 2013. Factors associated with asthma prevalence among racial and ethnic group-united states, 2009-2010 Behavioral Risk

Zeibecoglou, Siafakas NM. 2001. Induced sputum in asthma. *Monaldi Arch Chest Dis* 2001; 56:500-3

Zhang R, Luo W, Liang Z, Tan Y, Chen R Lu W, Zhong N. 2017. Eotaxin and IL-4 levels are increased in induced sputum and correlated with sputum eosinophils in patients with nonasthmatic eosinophilic bronchitis. *Medicine*. (2017): 96:13

