

## DAFTAR PUSTAKA

- Baggaley, R.F., White, R.G. & Boily, M.C. 2010. HIV transmission risk through anal intercourse: Systematic review, meta-analysis and implications for HIV prevention. *Int J Epidemiol*, 39(4): 1048–1063.
- Benito, J.M., López, M., Lozano, S., Ballesteros, C., Martinez, P., González-Lahoz, J. & Soriano, V. 2005. Differential upregulation of CD38 on different T-cell subsets may influence the ability to reconstitute CD4+ T cells under successful highly active antiretroviral therapy. *J. Acquir. Immune Defic. Syndr.*, 38(4): 373–381.
- Bernal, E., Serrano, J., Perez, A., Valero, S., Garcia, E. & Marín, I. 2014. The CD4:CD8 ratio is associated with IMT progression in HIV-infected patients on antiretroviral treatment. *J Int AIDS Soc*, 17(November): 19723. <http://doi.wiley.com/10.7448/IAS.17.4.19723>.
- Boasso, A. & Shearer, G.M. 2009. Chronic innate immune activation as a cause of HIV-1.pdf. *Clin Immunol*, 126(3): 235–242.
- Buggert, M., Frederiksen, J., Noyan, K., Svard, J., Barqasho, B., Sonnerborg, A., Lund, O., Nowak, P. & Karlsson, A.C. 2014. Multiparametric Bioinformatics Distinguish the CD4/CD8 Ratio as a Suitable Laboratory Predictor of Combined T Cell Pathogenesis in HIV Infection. *J. Immunol.*, 192(5): 2099–2108. <http://www.jimmunol.org/cgi/doi/10.4049/jimmunol.1302596>.
- Caby, F., Guihot, A., Lambert-Niclot, S., Guiguet, M., Boutolleau, D. & Agher, R. 2016. Determinants of a low CD4/CD8 ratio in HIV-1-infected individuals despite long-term viral suppression. *Clin. Infect. Dis.*, 62(10): 1297–1303.
- Calles, N.R., Desiree, E. & Terlonge, D. 2010. Pathophysiology of the human immunodeficiency virus. *Baylor Pediatr. Int. AIDS Initiat.*, (Jan 28): 7–14. <http://www.bipai.org/Curriculums/HIV-Curriculum/Pathophysiology-of-HIV.aspx>.
- Cao, W., Mehraj, V., Kaufmann, D.E., Li, T. & Routy, J.P. 2016. Elevation and persistence of CD8 T-cells in HIV infection: The Achilles heel in the ART era. *J Int AIDS Soc*, 19(1): 1–9.
- Chun, T., Justement, J.S., Sanford, C., Hallahan, C.W., Planta, M.A., Loutfy, M., Kottlil, S., Moir, S., Kovacs, C. & Fauci, A.S. 2004. Relationship between the frequency of HIV-specific CD8 % T cells and the level of CD38 % CD8 % T cells in untreated HIV-infected individuals. , 101(8).
- Cummins, N.W. & Badley, A.D. 2010. Mechanisms of HIV-associated lymphocyte apoptosis: 2010. *Cell Death Dis*, 1(11): e99-9. <http://dx.doi.org/10.1038/cddis.2010.77>.
- Deeks, S.G., Kitchen, C.M.R., Liu, L., Guo, H., Gascon, R., Narva'ez, A.B., Hunt, P. & Martin, J.N. 2004. Immune activation set point during early HIV infection predicts subsequent CD4 + T-cell changes independent of viral load. *Blood*, 104(4): 942–947.
- Engelman, A. & Cherepanov, P. 2013. The structural biology of HIV-1: mechanistic and therapeutic insights. *Nat Rev Microbiol*, 10(4): 279–290.
- Fanales-Belasio, E., Raimondo, M., Suligoj, B. & Butto, S. 2010. HIV virology

- and pathogenetic mechanisms of infection: a brief overview. *Ann Ist Super Sanità*, 46(1): 5–14.
- Fettig, J., Swaminathan, M., Murrill, C.S., Kaplan, J.E., Branch, S.I. & Branch, T. 2016. Global Epidemiology of HIV. *Infect Dis Clin North Am*, 28(3): 323–337.
- German Advisory Committee Blood. 2016. Human Immunodeficiency Virus (HIV). *Transfus Med Hemother*, 43: 203–222.
- Gulzar, N. & Copeland, K. 2004. CD8+ T-Cells: Function and Response to HIV Infection. *Curr. HIV Res.*, 2(1): 23–37. <http://www.eurekaselect.com/openurl/content.php?genre=article&issn=1570-162X&volume=2&issue=1&spage=23>.
- Ilovi, C.S. 2011. Correlation of WHO clinical staging with CD4 counts in adult HIV/AIDS patients at KNH. *East African Med j*, 88(2): 65–70.
- Jiang, W., Kang, L., Lu, H., Pan, X., Lin, Q., Pan, Q., Xue, Y. & Weng, X. 2004. Normal Values for CD4 and CD8 Lymphocyte Subsets in Healthy Chinese Adults from Shanghai. *Clin Diagn Lab Immunol*, 11(4): 811–813.
- Kaplan, R.C., Sinclair, E., Landay, A.L., Lurain, N., Sharrett, A.R., Gange, S.J., Xue, X., Hunt, P., Karim, R., Kern, D.M., Hodis, H.N. & Deeks, S.G. 2011. T Cell Activation and Senescence Predict Subclinical Carotid Artery Disease in HIV-Infected Women. *J. Infect. Dis.*, 203.
- Kementerian Kesehatan RI. 2017. *Estimasi dan Proyeksi HIV/AIDS di Indonesia Tahun 2015-2020*.
- Kementerian Kesehatan RI. 2018. *Laporan Perkembangan HIV-AIDS & Penyakit Infeksi Menular Seksual (IMS) Triwulan IV tahun 2017*.
- Kementerian Kesehatan RI. 2014. *Peraturan Menteri Kesehatan Republik Indonesia Nomor 87 Tahun 2014 tentang Pedoman Pengobatan Antiretroviral*.
- Kun, L., Xiao, H. & Michael F., S. 2012. Structural Determinants and Mechanism of HIV-1 Genome Packaging. *J Mol Biol*, 410(4). <http://spiedigitallibrary.org/proceeding.aspx?doi=10.1117/12.656518>.
- Lawn, S.D., Butera, S.T. & Folks, T.M. 2001. Contribution of Immune Activation to the Pathogenesis and Transmission of Human Immunodeficiency Virus Type 1 Infection. *Clin Microbiol Rev*, 14(4): 753–777.
- Lo, J., Abbara, S., Shturman, L., Soni, A., Wei, J., Rocha-Filho, J.A., Nasir, K. & Grinspoon, S.K. 2011. Increased prevalence of subclinical coronary atherosclerosis detected by coronary computed tomography angiography in HIV-infected men. *AIDS*, 24(2): 243–253.
- Lu, W., Mehraj, V., Vyboh, K., Cao, W., Li, T. & Routy, J.P. 2015. CD4:CD8 ratio as a frontier marker for clinical outcome, immune dysfunction and viral reservoir size in virologically suppressed HIV-positive patients. *J Int AIDS Soc*, 18(1).
- Maartens, G., Celum, C. & Lewin, S.R. 2014. HIV infection: Epidemiology, pathogenesis, treatment, and prevention. *Lancet*, 384(9939): 258–271. [http://dx.doi.org/10.1016/S0140-6736\(14\)60164-1](http://dx.doi.org/10.1016/S0140-6736(14)60164-1).
- Madiyono, B., Moeslichan, S.M., Sastroasmoro, S., Budiman, I. & Purwanto, S.H. 2014. Perkiraan Besar Sampel. In *Dasar-dasar Metodologi Penelitian Klinis*

*Edisi ke-5.* 363–381.

- Mehandru, S., Poles, M.A., Tenner-Racz, K., Jean-Pierre, P., Manuelli, V. & Lopez, P. 2006. Lack of mucosal immune reconstitution during prolonged treatment of acute and early HIV-1 infection. *PLoS Med.*, 3(12): 2335–2348.
- Menozzi, M., Zona, S., Santoro, A., Carli, F., Stentarelli, C., Mussini, C. & Guaraldi, G. 2014. CD4/CD8 ratio is not predictive of multi-morbidity prevalence in HIV-infected patients but identify patients with higher CVD risk. *J Int AIDS Soc*, 17(November): 19709. <http://doi.wiley.com/10.7448/IAS.17.4.19709>.
- Mudd, J.C. & Lederman, M.M. 2014. CD8 T cell persistence in treated HIV infection. *Curr Opin HIV AIDS*, 9(5): 500–505.
- Munier, M.L. & Kelleher, A.D. 2007. Acutely dysregulated, chronically disabled by the enemy within: T-cell responses to HIV-1 infection. *Immunol Cell Biol*, 85(1): 6–15.
- Musumeci, D., Riccardi, C. & Montesarchio, D. 2015. G-Quadruplex forming oligonucleotides as Anti-HIV agents. *Molecules*, 20(9): 17511–17532.
- Naif, H.M. 2013. Pathogenesis of HIV infection HIV primary infection. *Infect Dis Rep*, 5.
- Okoye, A.A. & Picker, L.J. 2013. CD4+ T cell depletion in HIV infection: mechanisms of immunological failure. *Immunol*, 254(1): 54–64.
- Ostrowski, S.R. 2010. Immune activation in chronic HIV infection. *Dan Med Bull*, 57(3).
- Paranjape, R.S. 2005. Immunopathogenesis of HIV infection. *Indian J Med Res*, 121: 240–255.
- Pilch-Cooper, H.A., Asaad, R., Debernardo, R., Mudd, J., Sieg, S. & Rabin, R.L. 2013. Interferon- $\alpha$  Is the Primary Plasma Type-I IFN in HIV-1 Infection and Correlates with Immune Activation and Disease Markers. *PLoS One*, 8(2): e56527.
- Quarona, V., Zaccarello, G., Chillemi, A., Brunetti, E., Singh, V.K. & Ferrero, E. 2013. CD38 and CD157: A long journey from activation markers to multifunctional molecules. *Cytom. Part B - Clin. Cytom.*, 84(4): 207–217.
- Ray, K., Gupta, S.M., Bala, M., Muralidhar, S. & Kumar, J. 2006. CD4 / CD8 lymphocyte counts in healthy , HIV-positive individuals & AIDS patients. *Indian J Med Res*, 124(October).
- Rugeles, M.T. 2017. Role of Different Subpopulations of CD8 + T Cells during Hiv exposure and infection. , 8(August): 1–9.
- Sainz, T., Serrano-Villar, S., Diaz, L., Tome, M.I.G. & Gurbindo, M.D. 2013. The CD4/CD8 ratio as a marker T-cell activation, senescence and activation/exhaustion in treated HIV-infected children and young adults. *AIDS*, 27: 1513–1519.
- Sandoval-Montes, C. & Santos-Argumedo, L. 2005. CD38 is expressed selectively during the activation of a subset of mature T cells with reduced proliferation but improved potential to produce cytokines. *J. Leukoc. Biol.*, 77(4): 513–521. <http://doi.wiley.com/10.1189/jlb.0404262>.
- Saracino, A., Bruno, G., Scudeller, L., Volpe, A., Caricato, P. & Ladisa, N. 2014. Chronic Inflammation in a Long-Term Cohort of HIV-Infected Patients

- According to the Normalization of the CD4:CD8 Ratio. *AIDS Res Hum. Retroviruses*, 30(12): 1178–1184.  
<http://online.liebertpub.com/doi/abs/10.1089/aid.2014.0080>.
- Sauter, R., Huang, R., Ledergerber, B., Battegay, M., Bernasconi, E., Cavassini, M., Furrer, H., Hoffmann, M., Yerly, S., et al. 2016. CD4/CD8 ratio and CD8 counts predict CD4 response in HIV-1-infected drug naive and in patients on cART. *Med. (United States)*, 95(42).
- Savarino, A., Bottarel, F., Malavasi, F. & Dianzani, U. 2000. Role of CD38 in HIV-1 infection : an epiphenomenon of T-cell activation or an active player in virus / host interactions ? *AIDS*, 14: 1079–1089.
- Serrano-Villar, S., Gutiérrez, C., Vallejo, A., Hernández-Novoa, B., Díaz, L. & Abad Fernández, M. 2013. The CD4/CD8 ratio in HIV-infected subjects is independently associated with T-cell activation despite long-term viral suppression. *J Infect*, 66(1): 57–66.
- Serrano-Villar, S., Perez-Elias, M.J., Dronda, F., Casado, J.L., Moreno, A. & Royuela, A. 2014. Increased risk of serious non-AIDS-related events in HIV-infected subjects on antiretroviral therapy associated with a low CD4/CD8 ratio. *PLoS One*, 9(1).
- Serrano-Villar, S., Sainz, T., Lee, S.A., Hunt, P.W., Sinclair, E. & Shacklett, B.L. 2014. HIV-Infected Individuals with Low CD4/CD8 Ratio despite Effective Antiretroviral Therapy Exhibit Altered T Cell Subsets, Heightened CD8+ T Cell Activation, and Increased Risk of Non-AIDS Morbidity and Mortality. *PLoS Pathog.*, 10(5).
- Steel, A., John, L., Shamji, M.H., Henderson, D.C., Gotch, F.M., Gazzard, B.G. & Kelleher, P. 2008. CD38 expression on CD8 T cells has a weak association with CD4 T-cell recovery and is a poor marker of viral replication in HIV-1-infected patients on antiretroviral therapy. : 118–125.
- UNAIDS. 2016. Global AIDS Update 2016. *World Heal. Organ.*, (March): 422.  
[http://www.unaids.org/sites/default/files/media\\_asset/UNAIDS\\_Gap\\_report\\_en.pdf](http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Gap_report_en.pdf).
- Vijayan, K.K.V., Karthigeyan, K.P., Tripathi, S.P. & Hanna, L.E. 2017. Pathophysiology of CD4 + T-Cell Depletion in Hiv-1 and Hiv-2 infections. *Front Immunol*, 8(580): 1–8.
- WHO. 2018. *WHO HIV Update: Global Epidemic Progress in Scale Up and Policy Uptake*.  
[https://www.who.int/hiv/data/2017\\_global\\_summary\\_web\\_v11.pptx?ua=1](https://www.who.int/hiv/data/2017_global_summary_web_v11.pptx?ua=1).
- Yan, H., Yang, H., Li, J., Wei, C., Xu, J., Liu, X., Xu, X. & McFarland, W. 2014. Emerging Disparity in HIV/AIDS Disease Progression and Mortality for Men Who Have Sex with Men, Jiangsu Province, China. *AIDS Behav*, 18(01): 1–14.