

DAFTAR PUSTAKA

- Albert PR. (2011). What is a functional genetic polymorphism? Defining classes of functionality. *J Psychiatry Neurosci*,36,363-365.
- AlconS, TalarminA, DebruyneM, FalconarA, Deubel V,Flamand M, (2002). Enzyme-linked immunosorbent assay specific to dengue virus type 1 nonstructural protein NS1 reveals circulation of the antigen in the blood during the acute phase of disease in patients experiencing primary or secondary infections. *J Clin Microbiol*,40,376-381.
- Almodovar CR, Lambrechts D, Mazzone M, Carmeliet P, (2009). Role and therapeutic potential of VEGF. *Physiological Review*,89,607-648.
- Anderson R, Wang S, Osiowy C, Issekutz A, (1997). Activation of endothelial cells via antibody enhanced dengue virus infection of peripheral blood monocytes. *J Virol*,71,4226-4232.
- Andersen AMC, Thunberg T, Ahlm C, (2014). Endothelial activation and repair during hantavirus infection : association with disease outcome. *OFID*, 1,1-9
- BarreroPR, MistchenkoAL, (2008). Genetic analysis of dengue virus type 3 isolated in Buenos Aires, Argentina. *Virus Research*,135,83-88.
- Barton WA, Tzvetkova D, Nikolov DB, (2005). Structure of the angiopoietin-2 receptor binding domain and identification of surface involved in Tie2 recognition. *Structure*,15,825-832.
- Blanton RE, Silva LK, Morato VG, Parrado AR, Dias JP, MeloPRS, et al. (2008). Genetic ancestry and income are associated with Dengue Hemorrhagic Fever in a highly admixed population. *Eur J Human Genet*,16,762-765.
- Brkovic A, Sirois MG,(2006). Vascular Permeability Induced by VEGF Family Members in role of endogenous PAF and NO synthesis. *J Cell Biochem*,100,727-737.
- Cabello-Gutierrez C, Manjarrez-Zavala ME, Huerta-Zepeda A, Cime-Castillo J, Monroy-Martinez V, Correa BB, *et al.* (2009). Modification of the cytoprotective protein C pathway during dengue virus infection of human endothelial vascular cells. *Thromb Haemost*,101,916-928.

- Carvalho CX, Gibson G, Brasil P, Ferreira, RX, Santos R, Cruz OG, *et al.* (2013). Single nucleotide polymorphisms in candidate genes and dengue severity in children: A case-control, functional and meta-analysis study. *Infection Genetics and Evolution*,20,197-205.
- Chong AY, Caine GJ, Freestone B, Lip GYH. (2004). Plasma angiopoietin-1, angiopoietin-2, and angiopoietin receptor tie-2 levels in congestive heart failure. *Research gate*.08.
- Daly C, Thurston G, (2012). The Complex Role of Angiopoietin-2 in the Angiopoietin-Tie Signaling Pathway. *Old Spring Harb Perspect Med*.
- Dalrymple NA, Mackow ER, (2012). Roles for endothelial cells in dengue virus infection. *Advances in Virology*,2,1-8.
- DarwishTN, Alias YB, Khor SM, (2015). An introduction to dengue-disease diagnostics. *Trends in Analytical Chemistry*,67,45-55.
- Davis S, Aldrich TH, Jones PF, Acheson A, Compton DL, Jain V, *et al.* (1996). Isolation of angiopoietin-1, a ligand for the TIE2 receptor by secretion-trap expression cloning. *Cell*,87,1161-1169.
- Dejnirattisai W, Jumnainsong A, Onsirisakul N, Fitton P, Vasanawathana S, Limpitikul W, *et al.* (2010). Cross-reacting antibodies enhance dengue virus infection in humans. *Science*, 328, 745-748.
- Dejana E, Orsenigo F, Lampugnan MG,(2008). The role adherens junctions and veadherin in control of vascular permeability. *JCS*,121,2115-2122.
- Dewi R, (2005). Gambaran klinis demam berdarah dengue dan faktor resiko yang memprediksi terjadinya renjatan.Tesis.Jakarta Dept IKA FKUI,1,1-10.
- Dharma R, Hadinegoro SR, Priatini I, (2006). Disfungsi endotel pada demam berdarah dengue.Makara Kesehatan,10,17-23.
- Direktorat Jenderal Pengendalian Penyakit dan Penyehatan Lingkungan Kementerian Kesehatan (2012). Laporan akuntabilitas kinerja DITJEN PP dan PL tahun 2012.
- Djamiatun K, Van der Ven AJ, de Groot PG, Faradz SM, Hapsari D, *et al.* (2012). Severe dengue is associated with consumption of von willebrand factor and its cleaving enzyme ADAMTS-13. *PLoS Negl Trop Dis*,6,16-28.
- Dusart P, Labeau B, Lagathu G, (2006). Evaluation of an enzyme immunoassay for detection of dengue virus NS1 antigen in human serum. *Clin Vaccine Immunol*,13,1185-1189.

- Endy TP, Nisalak A, Chunsuttiwat S, Libraty DH, Green S, Rothman AL, et al. 2002. Spatial and Temporal Circulation of Dengue Virus Serotypes: A Prospective Study of Primary School Children in Kamphaeng Phet, Thailand. *American Journal of Epidemiology*,156,52-59.
- Eppy, (2012). Aspek genetik demam berdarah dengue. *CDK*,39,665-668.
- Garcia CJA, Guzman GFJ, Alejandro QVM, Ruiz MCG, Sachedz HM, Lemarroy CRC,(2010). Dengue hemorrhagic fever in infant after primoinfection. *Bol Med Hosp Infant Mex*,67,355-358.
- Gavard J, Patel V, Gutkind JS, (2008). Angiopoietin-1 prevent vegf-induced endothelial permeability by sequestering src through mdia. *Dev Cell*, 14,25-36.
- Guardo HP, Glasner DR, Harris E, (2016). Dengue virus NS1 disrupts the endothelial glycocalyx, leding to hyperpermeability. *Pathog* 12(7), 1-29
- Hackett SF, Ozaki H, Strauss RW, Wahlin K, Suri C, Maisonpierre P, et al. (2000). Angiopoietin 2 expression in the retina: upregulation during physiologic and pathologic neovascularization. *J Cell Physiol* 184,3,275-284.
- Hadidy AE, Sammak E,KhamisMY, Fawzy AM,(2013). Association between angiopoietin-2 gene polymorphism and pre-eclampsia. *RCOG World Congress*.
- Harapan H, Fajar JK, Wahyuniati N, Anand JR, Nambaru L, Jamil KF, (2013). Non HLA gene polymorphisms and their implications on dengue virus infection. *Egyptian Journal of Medical Human Genetics*,14,1-11.
- Halstead SB, Streit TG, Lafontant JG, Putvatana R, Russell K, Sun W, et al. (2001). Haiti: Absence of dengue hemorrhagic fever despite hyperendemic dengue virus transmission. *Am J Trop Med Hyg*,65,180-183.
- Hao J, He XD, (2014). Haplotype analysis of ApoA1 gene and sepsis associated acute lung injury. *Lipids in Health and Disease*,13,1-6.
- Hadinegoro SR, (1996). Telaah endotoksemia pada perjalanan penyakit demam berdarah dengue: perhatian khusus pada syok, produksi TNF-a, dan Interleukin-6 sebagai faktor prediktor demam berdarah dengue berat. disertasi. Fakultas Kedokteran Universitas Indonesia.
- He Q, Luo HM, Zhu BS, Tang XH, Jiang LZ. Association of 1233A/G polymorphism of angiopoietin-2gene with type 2 diabetes mellitus and diabetes nephropathy. *Chinese Journal of Medical Genetic*. 2012;29:72-6

- Hegen A, Koidl S, Weindel K, Marme D, Augustin HG, Fiedler U, (2004). Expression of angiopoietin-2 in endothelial cells is controlled by positive and negative regulatory promoter elements. *ArteriosclerThromb Vasc Biol*,24,1803-1809.
- Ho LJ, Wang JJ, Shaio MF, *et al.* (2001). Infection of human dendritic cells by Denguevirus causes cell maturation and cytokine production. *J Immunol*,166,1499-1506.
- Hoeben A, Landuyt B, Highley MS, Wildiers H, Van Oosterom AT, De Bruijn EA. (2004). Vascular endothelial growth factor and angiogenesis. *Pharmacol Rev.* 56. 549-80.
- Huber A, Grimm C, Pietrowski D, Zeillinger R, Bettendorf H, Husslein P, *et al.* (2005). An angiopoietin-2 gene polymorphism in unexplained intrauterine fetal death: a multicenter study. *Journal of Reproductive Immunology*,65,47–53.
- Jessie K, Fong MY, Devi S, *et al.* (2004). Localization of Dengue virus in naturally infected human tissues, by immunohistochemistry and in situ hybridization. *J Infect Dis*,189,1411-1418.
- Jones N, Iljin K, Dumont DJ, Alitalo K, (2001). Tie receptors: new modulators of angiogenic and lymphangiogenic responses. *Nat Rev Mol Cell Biol*,(2), 257-267.
- Karyanti MR, Uiterwaal CSPM, Kustiastuti R, Hadinegoro SR, Rovers MM, *et al.* (2014). The changing incidence of Dengue Haemorrhagic Fever in Indonesia: a 45-year registry-based analysis. *BMC Infectious Diseases*, 14:412,1-7.
- Kalomenidis I, Kollintza A, Sigala I, Papapetropoulos A, Papiris S, Light RW, Roussos C, (2006). Angiopoietin-2 levels are elevated in exudative pleural effusions. *Chest* 129,5,1259-1266.
- Konac E, Onen HI, Metindir J, Alp E, Biri AA, Ekmekci A, (2007). Lack of association between 460 C/T and 936 C/T of the vascular endothelial growth factor and angiopoietin-2 exon 4 G/A polymorphisms and ovarian, cervical, and endometrial cancers. *DNA and Cell Biology*,26,453-463.
- Kouri G, Guzman MG, Valdes L, Carbone I, del Rosario D, Vazquez S, *et al.* (1998). Reemergence of Dengue in Cuba: A 1997 epidemic in Santiago de Cuba. *Emerg Infect Dis*,4,89-92.
- Kumarasamy V, Chua SK, Hassan Z, Wahab AH, Chem YK, Mohamad M, *et al.* (2007). Evaluating the sensitivity of a commercial dengue NS1 antigen-capture Elisa for early diagnosis of acute dengue infection. *Singapore Med J*,48,669-673.

- Kumpers P, Gueler F, David S, Slyke PV, Dumont DJ, Park JK, *et al.* (2011). The synthetic tie2 agonist peptide vasculotide protects against vascular leakage and reduces mortality in murine abdominal sepsis. *Crit Care*,15,261
- Lan NTP, Hirayama K, (2011). Host genetic susceptibility to severe dengue infection. *Tropical Medicine and Health*,39,73-81.
- Lastere S, Goffard N, Teissier A, Zisou K, (2010). Assessment of NS1 antigen detection tests during DEN-4 epidemic in French Polynesia. *Pacific Public Health Surveillance Network*.
- Lee YR, Liu MT, Lei HY, *et al.* (2006). MCP-1, a highly expressed chemokine in Dengue haemorrhagic fever/ Dengue shock syndrome patients, may cause permeability change, possibly through reduced tight junctions of vascular endothelium cells. *J Gen Virol*,87,3623-3630.
- Lesmes PM, Tugues S, Ros J, Varo GF, Ruiz MM, Rodes J, *et al.* (2008). Vascular endothelial growth factor and angiopoietin-2 play a major role in the pathogenesis of vascular leakage in cirrhosis rats. *BMJ*, 58,1-5
- Libraty DH, Young PR, Pickering D, (2002) High circulating levels of the dengue virus nonstructural protein NS1 early in dengue illness correlate with the development of dengue hemorrhagic fever. *JID*,186,1165-1168.
- [Lim HS](#), [Blann AD](#), [Chong AY](#), [Freestone B](#), [Lip GY](#), (2004). Plasma vascular endothelial growth factor, angiopoietin-1, and angiopoietin-2 in diabetes: implications for cardiovascular risk and effects of multifactorial intervention. *Diabetes Care*, 12, 2918-24.
- Limonta D, Capo V, Torres G, *et al.* (2007). Apoptosis in tissues from fatal dengue shock syndrome. *J Clin Virol*,40,50-54
- Lukasz A, Hillgruber C, Oberleithner H, Vihrog KK, Pavenstadt H, Rovas A, *et al.* (2017). Endothelial glycocalyx breakdown is mediated by angiopoietin-2. *Cardio Research*, 1,1-10
- Lukasz A, Kumpers P, David S, (2012). Role of angiopoietin/Tie2 in critical illness: promising biomarker, disease mediator, and therapeutic target?. *Scientifica*, 2012,1-8
- Lukasz A, *et al.* (2017). Endothelial glycocalyx breakdown is mediated by angiopoietin-2. *Cardiovasc Res*, 671-680**

- Malamitsi A, Boutsikou T, Economou E, Tzonou A, Makrakis E, Nikolaou KE, *et al.* (2006). Angiopoietin-2 in the perinatal period and the role of intrauterine growth restriction. *Acta Obstet Gynecol Scand* 85,1,45-48
- Malavige GN, Ogg GS, (2017). Pathogenesis of vascular leak in dengue virus infection. *Immunology*, 151, 261-269
- Maron GM, Clara AW, Diddle JW, Pleites EB, Miller L, McDonald G, (2010). Association between Nutritional Status and Severity of Dengue Infection in Children in El Salvador. *Am J Trop Med Hyg*, 82(20),324-329
- Mayetti. (2010). Hubungan Gambaran Klinis dan Laboratorium Sebagai Faktor Risiko Syok pada Demam Berdarah Dengue. *Sari Pediatri*, 11,367-7
- Megariani, Mariko R, Alkamar A, Putra AE, (2014). Uji diagnostik pemeriksaan antigen nonstruktural 1 untuk deteksi dini infeksi virus dengue pada anak. *Sari Pediatri*,16,(2),122-127
- Michels M., van der Ven A.J., Djamiatun K., Fijnheer R., de Groot P.G., Griffioen, *et al.* (2012). Imbalance of angiopoietin-1 and ANGPT-2 in severe dengue and relationship with thrombocytopenia, endothelial activation, and vascular stability. *Am J Trop Med Hyg*,87,943-946
- Mongkolsapaya J, Dejnirattisai W, Xu XN, *et al.* (2003). Original antigenic sin and apoptosis in the pathogenesis of dengue hemorrhagic fever. *Nat Med*,9,921-927
- Moss A, (2013). The angiopoietin: Tie 2 interaction: a potential target for future therapies in human vascular disease. *Cytokine Growth Factor Rev.*
- Nimmannitya S.(2008). Dengue haemorrhagic fever: A scourge of South-East Asian Region. Global innovation to fight dengue. 2nd International Conference on Dengue and Dengue Haemorrhagic Fever. Phuket: Thailand, 22
- Oliveira MDL, Correia MTS, Diniz FB, (2009). A novel approach to classify serum glycoproteins from patients infected by dengue using electrochemical impedance spectroscopy analysis, *Synth. Met*,159,2162-2164.
- Onen HL, Konac E, Eroglu M, Ekmekci A, (2007). Angiopoietin-2 gene polymorphism in sporadic prostate cancer. *Gazi Tip Dergisi Medical Journal*,18,121-126.
- Parikh SM, Mammoto T, Schultz A, Yuan HT, Christiani D, Karumanchi SA, *et al.* (2006). Excess circulating angiopoietin-2 may contribute to pulmonary vascular leak in sepsis in humans. *Plos Med*,3,356-369

- Pietrowski D, Tempfer C, Bettebdorf H, Burkle B, Nagele F, Unfried G, *et al.* (2003). Angiopoeitin-2 polymorphism in women with idiopathic recurrent miscarriage. *Fertility and Sterility*,80,1026-1029
- Rampengan NH, Daud D, Waraouw S, Ganda IJ, (2015).Serum angiopoeitin 2 as marker of plasma leakage in dengue viral infection. *American Journal of Clinical and Experimental Medicine*,3,39-43
- Rathakrishnan A, Wang SM, Hu Y, Khan A.M., Ponnampalavanar S., Lum L.C. Cytokine expression profile of dengue patients at different phases. (2012). *Plos One*. 7.1-11
- Reitsma S, Slaff DW, Vink H, Van Zandvoort MA, Egbrink MG, (2007). The endothelial glycocalyx: composition, functions, and visualization. *Eur J Psysio*,454,345-359
- Rimoin DL, Connor J, Pyeritz RE, Korf BR, (2002). *Emery and Rimoin's: Principles and practice of medical genetics*. Churchill Livingstone.
- Roviezzo F, Tsigkos S, Kotanidou A, Bucci M, Brancalone V, Cirino G, *et al.* Angiopietin-2 causes inflammation in vivo by promoting vascular leakage. *The Journal of Pharmacology and Experimental Therapeutics*. 2005;314:738-44
- Schott U, Solomon C, Fries D, Bentzer P, (2016). The endothelial glycocalyx and its disruption, protection and regeneration: a narrative review. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*,24,1-8
- Seet R, Chow A, Quek A, Chan YH, Lim E,(2009). Relationship between circulating vascular endothelial growth factor and its soluble receptors in adult with dengue virus infection: a case –control study. *International journal of Infectious Disease*,13,248-53
- Setiabudi D, (2011). *Kumpulan tips pediatri*. (2nd ed.). Jakarta: Badan Penerbit Ikatan Dokter Anak Indonesia
- Setiati TE, Soemantri AG, (1997). Blood lactic acids as a predictor of mortality in severe dengue haemorrhagic fever in drKariadi Hospital–Semarang, Central Java [dissertation]Semarang: Universitas Diponegoro,10-19
- Shen YH, Godlewski J, Zhu J, Sathyanarayana P, Leanert V, Birre J, *et al.* (2003). Cross talk between Jnk/SPAK and ERK/MAPK pathways. *The Journal Of Biological Chemistry*, 278, 267,15-21
- Shepherd SM, Hinfey PB, Shoff WH, (2010). Dengue fever..Retrieved from: <http://www.emedicine.com>

- Silver KL, Kain KC, Liles WC (2007). Endothelial activation and dysregulation: a common pathway to organ injury in infectious diseases associated with systemic inflammation. 4. 215-22
- Siner JM, Bhandari V, Engle KM, Elias JA, Siegel MD, (2009). Elevated serum angiopoietin 2 levels are associated with increased mortality in sepsis. Shock,31,348-353
- Soegijanto S, (2010). Patogenesis infeksi virus dengue recent update. applied Management of Dengue Viral Infection in Children. 6 November 2010. hal 11-45
- Srikiatkachorn A, Ajariyakhajorn C, Endy TP, Kalayanaroj S, Libraty DH, Green S, *et al.* (2007). Virus-induced decline in soluble vascular endothelial growth receptor 2 is associated with plasma leakage in dengue hemorrhagic fever. J Virol,81,1592-600
- Srikiatkachorn, Anon, Kelley, James F, (2014). Endothelial cells in dengue hemorrhagic fever. Antiviral research. 109. 160-70
- Stutfeld E, Ballmer K, (2009). Critical Review: Structure and Function of VEGF Receptors. IUBMB Life. 61.915-922
- Su Li, Zhai R, Sheu CC, Gallagher DC, Gong MN, Tejera P, *et al.* (2009). Genetic variants in the ANGPT-2 gene are associated with increased risk of ards. Intensive Care Med,35,1024-1030
- Suwandono A, Kosasish H, Nurhayati, (2006). Four dengue virus serotypes found circulating during an outbreak of dengue fever and dengue haemorrhagic fever in Jakarta, Indonesia, during 2004. Trans R Soc Trop Med,100,855-862
- Sumarmo PS, (2002). Infeksi virus dengue. Dalam: Sumarmo PS, Garna H, Hadinegoro SRH, penyunting Buku ajar ilmu kesehatan anak dan penyakit tropis Edisi pertama Jakarta: Balai Penerbit Fakultas kedokteran Universitas Indonesia,176-208
- Taib B, (2009). Penyakit Demam Berdarah Dengue Pada Anak. Majalah ilmiah Unimus,1,50-1
- Thomas M, (2008). Molecular Mechanism of Angiopoietin 2 mediated destabilization of the vascular endothelium. Disertasi. Program Doktor Universitas Freiburg.
- Trang NTH, Long NP, Hue TTM, Hung LP, Trung TD, Dinh DN, *et al.* (2016). Association between nutritional status and dengue infection: a systematic review and meta-analysis. BMC Infectious Diseases,16,2-11

- Tseng CS, Lo HW, Teng HC, Lo WC, Ker CG. (2005). Elevated levels of plasma VEGF in patient hemorrhagic fever. *FEMS immunology and Medical Microbiology*;43:99-102
- Valenzuale DM, Griffiths JA, Rojas J, Aldrich TH, Jones PF, *et al.* (1996). Angiopoietin 3 and 4: diverging gene counterparts in mice and human. *ProcNatiAcad Sci*,96,1904-1909
- Van de Weg CAM, Pannuti CS, Van den Ham HJ, de Araujo ESA, Boas LSV, Felix AC, *et al.* (2014). Serum ANGPT-2 and soluble VEGF receptor 2 are surrogate markers for plasma leakage in patients with acute dengue virus infection. *J Clin Virol*,60,328-35
- Waidab W, Suphapeetiporn K, Thisyakorn U, (2008). Pathogenesis of dengue hemorrhagic fever: from immune to genetics. *J Pediat Infect Dis*,3,221-227
- Wallez Y, Huber P, (2008). Endothelial Adherens and Tight Junctions in Vascular Homeostasis, Inflammation and Angiogenesis. *Biochemica et Biophysica Acta*,1778,794-809
- Wan RG, Chen DB, Lou YG, Wang MF, Zhang QH, Jin DX, *et al.* (2011). Diagnostic value of serum angiopoietin-2 level in pancreatic cancer. *Chinese jour of Oncol*.33.1.47-9
- Ward EG, Grosios K, Markham AF, Jones PF, (2001). Genomic structures of the human angiopoietins show polymorphism in angiopoietin-2. *Cytogenet. Cell Genet*,94,147-154
- Whalen MJ, Doughty LA, Carlos TM, Wisnewski SR, Kochanek PM, Carcillo JA, (2000). Intercellular adhesion molecule-1 and vascular cell adhesion molecule-1 are increased in plasma of children with sepsis-induced multiple organ failure. *Crit Care Med*,28,2600-7
- World Health Organization.(1999). *Dengue haemorrhagic fever : Diagnosis, treatment, prevention and control*(2nded). Geneva,1-84
- World Health Organization. (2009). *Dengue guidelines for diagnosis, treatment, prevention and control*. New edition. Geneva.
- World Health Organization-South East Asia Regional Office.(2011). *Comprehensive guidelines for prevention and control of dengue and dengue hemorrhagic fever*. India: WHO.
- WHO CDC. (2014). Dengue home. Retrieved from <http://www.cdc.gov/dengue/epidemiology/>.
- Yacoub S, Wills B. (2014). Predicting outcome from dengue. *BMC Med* 12.147.1-10

- Yu Q, Stamenkovic I, (2001). Angiopoietin-2 is implicated in the regulation of tumor angiogenesis. *Am J Pathol* 158,2,563-570
- Yua X, Seegarb T, Daltonb AC, Robeva DT, Goldgura Y, Rajashankarc KR, *et al.* (2013). Structural basis for angiopoietin-1-mediated signaling initiation. *PNAS*,110,7205-7210
- Yuan HT, Khankin EV, Karumanchi A, Parikh SM, (2011). Angiopoetin 2 is a partial agonist/antagonist of Tie-2 signaling in the endothelium. *Mol Cell Biol*,29,2011-2022

