

DAFTAR PUSTAKA

1. Belleza MLB, Cadacio JLC, Borja MP, Solon JAA, Padilla MA, Rivera WL, et al. Epidemiologic study of blastocystis infection in an urban community in the Philippines. *J Environ Public Health*. 2015;2015. doi:10.1155/2015/894297
2. Stark D, Barratt JLN, Van Hal S, Marriott D, Harkness J, Ellis JT. et al. Clinical significance of enteric protozoa in the immunosuppressed human population. *Clin Microbiol Rev*. 2009;22(4):634-650. doi:10.1128/CMR.00017-09
3. Pavanelli MF, Kaneshima EN, Uda CF, Colli CM, Falavigna-Guilherm AL, Gomes ML. Pathogenicity OF Blastocystis sp. to the gastrointestinal tract of mice: Relationship between inoculum size and period of infection. *Rev Inst Med Trop Sao Paulo*. 2015;57(6):467-472. doi:10.1590/s0036-46652015000600002
4. Ertug S, Karakas S, Okyay P, Ergin F, Oncu S. The effect of Blastocystis hominis on the growth status of children. *Med Sci Monit*. 2007;13(1):40-43.
5. Tan KSW. New insights on classification, identification, and clinical relevance of Blastocystis spp. *Clin Microbiol Rev*. 2008;21(4):639-665. doi:10.1128/CMR.00022-08
6. Kiani H, Haghighi A, Rostami A, Azargashib E, Seyyed-Tabaei SJ, Solgi A, et al. Prevalence, risk factors and symptoms associated to intestinal parasite infections among patients with gastrointestinal disorders in nahavand, western Iran. *Rev Inst Med Trop Sao Paulo*. 2016;58(1):1-7. doi:10.1590/S1678-9946201658042
7. Abdulsalam AM, Ithoi I, Al-Mekhlafi HM, Khan AH, Ahmed A, Surin J, et al. Prevalence, predictors and clinical significance of Blastocystis sp. in Sebha, Libya. *Parasites and Vectors*. 2013;6(1):4-11. doi:10.1186/1756-3305-6-86
8. Cabrine-Santos M, Cintra E do N, Carmo RA do, Nascentes GAN, Pedrosa AL, Correia D, et al. Ocorrência de Blastocystis spp. Em Uberaba, Minas Gerais, Brasil. *Rev Inst Med Trop Sao Paulo*. 2015;57(3):211-215. doi:10.1590/S0036-46652015000300005
9. Yaicharoen R, Sripochang S, Sermsart B, Pidetcha P. Prevalence of Blastocystis hominis infection in asymptomatic individuals from Bangkok, Thailand. *Southeast Asian J Trop Med Public Health*. 2005;36 Suppl 4(January 2005):17-20.
10. El Safadi D, Gaayeb L, Meloni D, Cian A, Poirier p, Wawrzyniak I, et al. Children of Senegal River Basin show the highest prevalence of Blastocystis

sp. ever observed worldwide. *BMC Infect Dis.* 2014;14(1):1-11. doi:10.1186/1471-2334-14-164

11. Osman M, El Safadi D, Cian A, Benamrouz S, Nourisson C, Poirier P, et al. Prevalence and Risk Factors for Intestinal Protozoan Infections with *Cryptosporidium*, *Giardia*, *Blastocystis* and *Dientamoeba* among Schoolchildren in Tripoli, Lebanon. *PLoS Negl Trop Dis.* 2016;10(3):1-17. doi:10.1371/journal.pntd.0004496
12. Hirata T, Nakamura H, Kinjo N, Hokama A, Kinjo F, Yamane N, et al. Prevalence of *Blastocystis hominis* and *Strongyloides stercoralis* infection in Okinawa, Japan. *Parasitol Res.* 2007;101(6):1717-1719. doi:10.1007/s00436-007-0712-7
13. Stensvold CR, Christiansen DB, Olsen KEP, Nielsen HV. *Blastocystis* sp. subtype 4 is common in Danish *Blastocystis*-positive patients presenting with acute diarrhea. *Am J Trop Med Hyg.* 2011;84(6):883-885. doi:10.4269/ajtmh.2011.11-0005
14. Sari IP, Benung MR, Wahdini S, Kurniawan A. Diagnosis and identification of *Blastocystis* subtypes in primary school children in Jakarta. *J Trop Pediatr.* 2018;64(3):208-214. doi:10.1093/tropej/fmx051
15. Fransisca RO, Iriani AD, Mutiksa FA, Izati S, Utami RK. Hubungan Infeksi Parasit Usus dengan Pengetahuan Perilaku Hidup Bersih Sehat pada Anak SD Bekasi, 2012. *eJournal Kedokt Indones.* 2015;3(1):2-6. doi:10.23886/ejki.3.4802.16-20
16. Laboratorium DI, Djamil RM. Secara Mikroskopis Dan Pcr Pada Sampel Feses. 37(94).
17. Mohammed A Al-Fellani, Abdul H Khan, Rugaia M Al-Gazoui, Mabrouk K Zaid MAA-F. Prevalence and Clinical Features of *Blastocystis hominis* infection among Patients in Sebha, Libya. 2007;7:35-40.
18. Bálint A, Dóczy I, Bereczki L, Gyulai R, Szucs M, Farkas K, et al. Do not forget the stool examination! - Cutaneous and gastrointestinal manifestations of *Blastocystis* sp. infection. *Parasitol Res.* 2014;113(4):1585-1590. doi:10.1007/s00436-014-3805-0
19. Aman MCU, Manoppo JIC, Wilar R. Gambaran Gejala Dan Tanda Klinis Diare Akut Pada Anak Karena *Blastocystis hominis*. *e-CliniC.* 2015;3(1). doi:10.35790/ecl.3.1.2015.7483
20. Andiran N, Acikgoz ZC, Turkay S, Andiran F. *Blastocystis hominis*-an emerging and imitating cause of acute abdomen in children. *J Pediatr Surg.* 2006;41(8):1489-1491. doi:10.1016/j.jpedsurg.2006.04.037

21. Leelayoova S, Rangsin R, Taamasri P, Naaglor T, Thathaisong U, Mungthin M. Evidence of waterborne transmission of *Blastocystis hominis*. *Am J Trop Med Hyg*. 2004;70(6):658-662. doi:10.4269/ajtmh.2004.70.658
22. Nardone DA, Callahan CM, Tierney WM. Cognitive impairment in primary care [1]. *Ann Intern Med*. 1996;124(2):273-274. doi:10.7326/0003-4819-124-2-199601150-00017
23. Dagci H, Ustun S, Taner MS, Ersoz G, Karacasu F, Budak S. Protozoon infections and intestinal permeability. *Acta Trop*. 2002;81(1):1-5. doi:10.1016/S0001-706X(01)00191-7
24. Levy Y, George J, Shoenfeld Y. Severe *Blastocystis hominis* in an elderly man. *J Infect*. 1996;33(1):57-59. doi:10.1016/S0163-4453(96)92833-9
25. Alfellani MA, Stensvold CR, Vidal-Lapiedra A, Onuoha ESU, Fagbenro-Beyioku AF, Clark CG. Variable geographic distribution of *Blastocystis* subtypes and its potential implications. *Acta Trop*. 2013;126(1):11-18. doi:10.1016/j.actatropica.2012.12.011
26. Ramírez JD, Sánchez LV, Bautista DC, Corredor AF, Flórez AC, Stensvold CR. *Blastocystis* subtypes detected in humans and animals from Colombia. *Infect Genet Evol*. 2014;22:223-228. doi:10.1016/j.meegid.2013.07.020
27. Domínguez-Márquez MV, Guna R, Muñoz C, Gómez-Muñoz MT, Borrás R. High prevalence of subtype 4 among isolates of *Blastocystis hominis* from symptomatic patients of a health district of Valencia (Spain). *Parasitol Res*. 2009;105(4):949-955. doi:10.1007/s00436-009-1485-y
28. Roberts T, Stark D, Harkness J, Ellis J. Subtype distribution of *Blastocystis* isolates identified in a Sydney population and pathogenic potential of *Blastocystis*. *Eur J Clin Microbiol Infect Dis*. 2013;32(3):335-343. doi:10.1007/s10096-012-1746-z
29. Nourrisson C, Scanzi J, Pereira B, NkoudMongo C, Wawryzniak I, Cian A, et al. *Blastocystis* is associated with decrease of fecal microbiota protective bacteria: Comparative analysis between patients with irritable bowel syndrome and control subjects. *PLoS One*. 2014;9(11). doi:10.1371/journal.pone.0111868
30. Yakoob J, Jafri W, Beg MA, Abbas Z, Naz S, Islam M, et al. Irritable bowel syndrome: Is it associated with genotypes of *Blastocystis hominis*. *Parasitol Res*. 2010;106(5):1033-1038. doi:10.1007/s00436-010-1761-x
31. Nagel R, Bielefeldt-Ohmann H, Traub R. Clinical pilot study: Efficacy of triple antibiotic therapy in *Blastocystis* positive irritable bowel syndrome patients. *Gut Pathog*. 2014;6(1):1-9. doi:10.1186/s13099-014-0034-0
32. Beatty JK, Bhargava A, Buret AG. Post-infectious irritable bowel syndrome:

- Mechanistic insights into chronic disturbances following enteric infection. *World J Gastroenterol.* 2014;20(14):3976-3985. doi:10.3748/wjg.v20.i14.3976
33. Chey WD, Kurlander J, Eswaran S. Irritable bowel syndrome: A clinical review. *JAMA - J Am Med Assoc.* 2015;313(9):949-958. doi:10.1001/jama.2015.0954
 34. Grundmann O, Yoon SL. Irritable bowel syndrome: Epidemiology, diagnosis and treatment: An update for health-care practitioners. *J Gastroenterol Hepatol.* 2010;25(4):691-699. doi:10.1111/j.1440-1746.2009.06120.x
 35. Ramirez-Miranda ME, Hernandez-Castellanos R, Lopez-Escamilla E, Moncada D, Rodriguez-Magallan A, Pagaza-Melero C, et al. Parasites in Mexican patients with irritable bowel syndrome: A case-control study. *Parasites and Vectors.* 2010;3(1):2-4. doi:10.1186/1756-3305-3-96
 36. Coyle CM, Varughese J, Weiss LM, Tanowitz HB. Blastocystis: To treat or not to treat.. *Clin Infect Dis.* 2012;54(1):105-110. doi:10.1093/cid/cir810
 37. Tan KSW. New insights on classification, identification, and clinical relevance of Blastocystis spp. *Clin Microbiol Rev.* 2008;21(4):639-665. doi:10.1128/CMR.00022-08
 38. (NCBI) NC for BI. Irritable Bowel Syndrome. Mesh database. Published 2004. Accessed September 22, 2020. <https://www.ncbi.nlm.nih.gov/mesh/68043183>
 39. National Center for Biotechnology Information (NCBI). Blastocystis Infections. Mesh database. Published 1992. Accessed September 26, 2020. <https://www.ncbi.nlm.nih.gov/mesh/68016776>
 40. (NCBI) NC for BI. Review. Mesh database. Published 2008. Accessed September 22, 2020. <https://www.ncbi.nlm.nih.gov/mesh/68016454>
 41. Nagel R, Traub RJ, Kwan MMS, Bielefeldt-Ohmann H. Blastocystis specific serum immunoglobulin in patients with irritable bowel syndrome (IBS) versus healthy controls. *Parasites and Vectors.* 2015;8(1):1-13. doi:10.1186/s13071-015-1069-x
 42. Vargas-Sanchez GB, Romero-Valdovinos M, Ramirez-Guerrero C, Vargas-Hernandez I, Ramirez-Miranda ME, Martinez-Ocana J, et al. Blastocystis isolates from patients with irritable bowel syndrome and from asymptomatic carriers exhibit similar parasitological loads, but significantly different generation times and genetic variability across multiple subtypes. *PLoS One.* 2015;10(4):1-13. doi:10.1371/journal.pone.0124006
 43. Ragavan ND, Kumar S, Chye TT, Mahadeva S, Shiao-Hooi H. Blastocystis

sp. in irritable bowel syndrome (IBS) - Detection in stool aspirates during colonoscopy. *PLoS One*. 2015;10(9):1-8. doi:10.1371/journal.pone.0121173

44. Azizian M, Basati G, Abangah G, Mahmoudi MR, Mirzaei A. Contribution of Blastocystishominis subtypes and associated inflammatory factors in development of irritable bowel syndrome. *Parasitol Res*. 2016;115(5):2003-2009. doi:10.1007/s00436-016-4942-4
45. Mattiucci S, Crisafi B, Gabrielli S, Paoletti M, Cancrini G. Molecular epidemiology and genetic diversity of Blastocystis infection in humans in Italy. *Epidemiol Infect*. 2016;144(3):635-646. doi:10.1017/S0950268815001697
46. Khademvatan S, Masjedizadeh R, Rahim F, Mahbodfar H, Salehi R, Yousefi-razin E, et al. Blastocystis and irritable bowel syndrome: Frequency and subtypes from Iranian patients. *Parasitol Int*. 2017;66(2):142-145. doi:10.1016/j.parint.2017.01.005
47. Gonzalez-Arenas NR, Villalobos G, Vargas-Sanchez GB, Avalos-Galarza CA, Marquez-Valdelamar LM, Ramirez-Mirand ME, et al. Is the genetic variability of Cathepsin B important in the pathogenesis of Blastocystis spp.? *Parasitol Res*. 2018;117(12):3935-3943. doi:10.1007/s00436-018-6103-4
48. Das R, Khalil S, Mirdha BR, Makharia GK, Dattagupta S, Chaudhry R. Molecular characterization and subtyping of blastocystis species in irritable bowel syndrome patients from north India. *PLoS One*. 2016;11(1):1-9. doi:10.1371/journal.pone.0147055
49. Nagel R, Traub RJ, Allcock RJN, Kwan MMS, Bielefeldt-Ohmann H. Comparison of faecal microbiota in Blastocystis-positive and Blastocystisnegative irritable bowel syndrome patients. *Microbiome*. 2016;4:1-9. doi:10.1186/s40168-016-0191-0
50. Jimenez-Gonzalez DE, Martinez-Flores WA, Reyes-Gordillo J, Ramirez-Miranda ME, Arroyo-Escalante S, Reyes-Gordillo J, et al. Blastocystis infection is associated with irritable bowel syndrome in a Mexican patient population. *Parasitol Res*. 2012;110(3):1269-1275. doi:10.1007/s00436-011-2626-7
51. Scanlan PD, Stensvold CR, Cotter PD. Development and Application of a Blastocystis Subtype-Specific PCR Assay Reveals that Mixed-Subtype Infections Are Common in a. 2015;81(12):4071-4076. doi:10.1128/AEM.00520-15
52. Puthia MK, Sio SWS, Lu J, Tan KSW. Blastocystis ratti Induces Contact-Independent Apoptosis , F-Actin Rearrangement , and Barrier Function Disruption in IEC-6 Cells. 2006;74(7):4114-4123. doi:10.1128/IAI.00328-06

53. Puthia MK, Lu J, Tan KSW. Blastocystis ratti contains cysteine proteases that mediate interleukin-8 response from human intestinal epithelial cells in an NF- κ B-dependent manner. *Eukaryot Cell*. 2008;7(3):435-443. doi:10.1128/EC.00371-07
54. Puthia MK, Vaithilingam A, Lu J, Tan KSW. Degradation of human secretory immunoglobulin a by Blastocystis. *Parasitol Res*. 2005;97(5):386-389. doi:10.1007/s00436-005-1461-0
55. Abdel-Hameed DM, Hassanin OM. Protease activity of Blastocystis hominis subtype3 in symptomatic and asymptomatic patients. *Parasitol Res*. 2011;109(2):321-327. doi:10.1007/s00436-011-2259-x
56. Poirier P, Wawrzyniak I, Vivarès CP, Delbac F, El Alaoui H. New insights into Blastocystis spp.: A potential link with irritable bowel syndrome. *PLoS Pathog*. 2012;8(3). doi:10.1371/journal.ppat.1002545
57. Mavroudis G, Strid H, Jonefjäll B, Simrén M. Visceral hypersensitivity is together with psychological distress and female gender associated with severity of IBS-like symptoms in quiescent ulcerative colitis.
58. Bruewer M, Luegering A, Kucharzik T, Parkos CA, Madara JL, Hopkins AM, et al. Proinflammatory Cytokines Disrupt Epithelial Barrier Function by Apoptosis-Independent Mechanisms. *J Immunol*. 2003;171(11):6164-6172. doi:10.4049/jimmunol.171.11.6164
59. Petrache I, Verin AD, Crow MT, Birukova A, Liu F, Garcia JGN. Differential effect of MLC kinase in TNF- α -induced endothelial cell apoptosis and barrier dysfunction. *Am J Physiol - Lung Cell Mol Physiol*. 2001;280(6 24-6):1168-1178. doi:10.1152/ajplung.2001.280.6.1168
60. Gitter AH, Bendfeldt K, Schmitz H, Schulzke JD, Bentzel CJ, Fromm M. Epithelial barrier defects in HT-29/B6 colonic cell monolayers induced by tumor necrosis factor- α . *Ann N Y Acad Sci*. 2000;915:193-203. doi:10.1111/j.1749-6632.2000.tb05242.x
61. Wendling D, Prati C. Paradoxical effects of anti-TNF- α agents in inflammatory diseases. *Expert Rev Clin Immunol*. 2014;10(1):159-169. doi:10.1586/1744666X.2014.866038