

DAFTAR PUSTAKA

1. ID Nagtegaal, MJ Arends, M Salto-Tellez. Colorectal Carcinoma. In: the WHO Classification of Tumors Editorial Board, ed. WHO Classification of Tumours digestive system tumors. 5th ed. IARC; 2019. 177-187 p.
2. Yantiss RK. Morphologic Classification of Colorectal Epithelial Tumors. In: Cagle PT, Allen TC, ed. Advances in Surgical Pathology Colorectal Carcinoma and Tumors of the Vermiform Appendix. Philadelphia: Wolters Kluwer ; 2015. 101-118 p.
3. Bray F, Ferlay J, Soerjomataram I. Global Cancer Statistics 2018: Globocan Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. 2018;68:394–424.
4. Wong MCS, Ding H, Wang J, Chan PSF, Huang J. Prevalence and risk factors of colorectal cancer in Asia. Intest Res Journal. 2019;17(3):317–29.
5. International Agency for Research on Cancer WHO. Cancer today. IARC Web site. <https://gco.iarc.fr/today/>. Accessed April 21, 2020.
6. Yayasan Kanker Indonesia. Badan Registrasi Kanker Perhimpunan Dokter Spesialis Patologi Indonesia. Kanker di Indonesia tahun 2014, Data Histopatologik. Jakarta: Yayasan Kanker Indonesia; 2017.
7. Kumar V, Abbas AK, Aster JC. Small and Large Intestine. Robbins Basic Pathology. 10th ed. Philadelphia: Elsevier; 2018. 630-634 p.
8. Wyk HC Van, Roxburgh CS, Horgan PG, Foulis AF, Mcmillan DC. The detection and role of lymphatic and blood vessel invasion in predicting survival in patients with node negative operable primary colorectal cancer. Crit Rev Oncol / Hematol 2014;90(1):77–90.
9. Joachim C, Macni J, Drame M, Pomier A, Escarmant P, Veronique-baudin J, et al. Overall Survival of Colorectal Cancer by Stage at Diagnosis. 2019;35(July).
10. Ceci C, Atzori MG, Lacial PM, Graziani G. Role of VEGFs / VEGFR-1 Signaling and Its Inhibition in Modulating Tumor Invasion : Experimental Evidence in Different Metastatic Cancer Models. International Journal of Molecular Sciences. 2020; 21:1–53.
11. V Shaun, Walsh F, Carey. Malignant epithelial neoplasms of the large bowel In : Shepherd NA, *et al* ed. Morson and Dawson's Gastrointestinal Pathology. 5th ed. United Kingdom: Blackwell; 2013. 685–712 p.
12. Yuan H, Dong Q, Zheng B, Hu X, Xu J. Lymphovascular invasion is a high risk factor for stage I / II colorectal cancer : a systematic review and meta-analysis Search results. 2017;8(28):46565–79.

13. Aktekin A, Özkara S, Gürleyik G. The Factors Effecting Lymphovascular Invasion in Adenocarcinoma of the Colon and Rectum. 2015;77(December):314–8.
14. Downs-Kelly E, Rubin BP, Goldblum JR. Epithelial Neoplasms of the Large Intestine. In: Odze RD, Goldblum JR, ed. Odze and Goldblum Surgical Pathology of the GI Tract, Liver, Biliary Tract, and Pancreas. 3rd ed. Philadelphia: Elsevier saunder; 2015. 822–829 p.
15. Swanson BJ, Owens SR, Frankel WL. Neoplasms of the Colon. In : Lamps LW, Bellizzi AM, Frankel WL, Owens SR, Yantiss RK, ed. Neoplastic Gastrointestinal Pathology An Illustrated Guide. New York: Demosmedical; 2016. 283–301 p.
16. Resch Annika. Prognostic Value Of Tumor Grading In Colorectal Cancer. Systematic analysis of primary and metastatic tumor tissue. Institute of Pathology. Medical University of Graz. 2015;(8).
17. Pai RK, Gonzalo DH, Schaeffer DF. Epithelial Neoplasms of the Colon. in : Noffsinger AE, Ed. Fenoglio-Preiser's Gastrointestinal Pathology. 4th ed. Philadelphia: Wolter Kluwer; 2017. 886-927 p.
18. Gunantara IBC, Dewi ISM, Artha IGA. Ekspresi Vascular Endothelial Growth Factor Berhubungan Positif dengan Kedalaman Invasi pada Adenokarsinoma Kolorektal. Majalah Patologi. 2019; 28(2): 44-49.
19. Torino F, Sarmiento R, Longo R, Gasparini G. Therapeutic Agents That Inhibit Angiogenesis. In : Coleman WB, Tsongalis GJ, ed. The Molecular Basis of Human Cancer. 2nd ed. New York: Springer; 2017. 757-770 p.
20. Hicklin DJ, Ellis LM. Role of the Vascular Endothelial Growth Factor Pathway in Tumor Growth and Angiogenesis. 2012;23(5):1011–27.
21. Anannamcharoen S, Nimmanon T. Study of the Vascular Endothelial Growth Factor (VEGF) Expression and Microvascular Density (MVD) in Primary Colorectal Cancer Specimens. 2012;95(8):1041–7.
22. Larijani LV, Ghasemi M, Charati JY. Evaluation of VEGF Immunohistochemical Expression and Correlation with Clinicopathologic Features in Colorectal Cancer. 2015;20(3):199–204.
23. Zygoń J, Szajewski M, Kruszewski WJ, Rzepko R. VEGF, Flt-1, and Microvessel Density in Primary Tumors As Predictive Factors of Colorectal Cancer Prognosis. 2017;243–8.
24. Gomes EGA, et al. Correlation Between the Immunohistochemical Expressions of MMP-1, MMP-7 and VEGF and Prognostic Factors In Colorectal Adenocarcinoma. 2009;24(4):303–10
25. Ashwini K, Padmavathi R. A Study on Expression of Vascular Endothelial Growth Factor in Colorectal Malignancies and its Correlation with Various Clinicopathological Parameters. 2018;1–4.

26. Jessup JM, *et al.* Colon and Rectum. In : Amin MB, ed. AJCC Cancer Staging Manual. 8th ed. Chicago: Springer; 2018. 251- 274 p.
27. IARC Handbooks of Cancer Prevention-17. Colorectal Cancer Screening. Lyon: IARC; 2019:27–50.
28. Roshan MHK, Tambo A, Pace NP. The role of testosterone in colorectal carcinoma : pathomechanisms and open questions. EPMA J [Internet]. 2016;1–10. Available from: <http://dx.doi.org/10.1186/s13167-016-0071-5>
29. Krasanakis T, Nikolouzakis TK, Sgantzios M, Sapsakos TM, Souglakos J, Spandidos DA, *et al.* Role of anabolic agents in colorectal carcinogenesis : Myths and realities (Review). 2019;2228–44.
30. Hamilton SR, *et al.* Carcinoma of the Colon and Rectum. In : Bosman FT, Carneiro F, Hruban RH, Theise ND, ed. WHO Classification of Tumors of the Digestive System. 2010;134–146.
31. Iacobuzio-Donahue CA. Epithelial Neoplasms of the Colorectum. In : Goldblum JR, ed. Gastrointestinal And Liver Pathology. 2nd ed. Philadelphia; 2012. 429–436 p.
32. Ross MH, Pawlina W. Histology : a Text and Atlas : with Correlated Cell and Molecular Biology. 7th ed. Philadelphia: Wolter Kluwer; 2016. 594–601 p.
33. Compton CC, Fielding LP, Burgart LJ, Conley B, Cooper HS, Hamilton SR, *et al.* Prognostic Factors in Colorectal Cancer College of American Pathologists Consensus Statement 1999. Arch Pathol Lab Med. 2000;124(7):979-94.
34. Kitagawa H, Yoshimitsu M, Kaneko M, Ibuki Y, Emi M, Kohashi T, *et al.* Invasive micropapillary carcinoma component is an independent prognosticator of poorer survival in Stage III colorectal cancer patients. 2017;47(12):1129–34.
35. Greenson JK. Colorectal Adenocarcinoma. In: Greenson JK, Lauwera GY, Montgomery EA, Owens SR, Polydorides AD, ed. Diagnostic Pathology: Gastrointestinal. 2nd ed. Philadelphia: Elsevier; 2016. 480–489 p.
36. Fleming M, Ravula S, Tatischev SF, Wang HL. Colorectal carcinoma : Pathologic aspects. 2012;3(3):153–73.
37. Chen Y, Tsai H, Lin C, Huang C. Adenosquamous carcinoma of the colon. Genomic Med Biomarkers, Heal Sci. 2012;4(3):103–6.
38. Qi L, Ding Y. Screening of Differentiation-Specific Molecular Biomarkers for Colon Cancer. Cell Physiol Biochem. 2018;2543–50.
39. Galandiuk S. Significance of Lymphovascular Invasion in Sporadic Colorectal Cancer. 2010; 53: 375–6.

40. Schneider NI, Langer C. Prognostic stratification of colorectal cancer patients: current perspectives. *Cancer Management and Research*. 2014;6:291–300.
41. Tang LH, Berlin J, Branton P, Hospital IF, Church F, Burgart LJ, et al. Protocol for the Examination of Specimens From Patients With Primary Carcinoma of the Colon and Rectum. 2016;(January).
42. Messenger DE, Driman DK, Mbchb RK. Developments in the assessment of venous invasion in colorectal cancer: implications for future practice and patient outcome. *Hum Pathol*. 2012;43(7):965–73.
43. Sato T, Ueno H, Mochizuki H, Shinto E. Objective Criteria for the Grading of Venous Invasion in Colorectal Cancer. 2010;34(4):454–62.
44. Betge J, pollheimer MJ, Lindtner RA, Kornprat P, Schlemmmer A, et al. Intramural and Extramural Vascular Invasion in Colorectal Cancer Prognostic Significance and Quality of Pathology Reporting. 2012;(2):628–38.
45. Nila Farid Moeloek. Pedoman Nasional Pelayanan Kedokteran Tata Laksana Kanker Kolorektal. Dalam Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/Menkes/406/2018. 2018. 1–160 p.
46. Karaman S, Leppa V. Vascular endothelial growth factor signaling in development and disease. 2018;1–8.
47. Melincovici CS, et al. Vascular endothelial growth factor (VEGF) – key factor in normal and pathological angiogenesis. 2018;59(2):455–67.
48. Lamalice L, Boeuf FL, Hout J. Endothelial Cell Migration During Angiogenesis. 2007;782–94.
49. Pardali E, Godfrey R dan Waltenberger J. VEGF Signaling in Normal and Tumor Angiogenesis. In : Gonzalez-Perez RR, Rueda BR, ed. *Tumor Angiogenesis Regulators*.. New York: CRC Press; 2013.1-36 p.
50. Breier G. *Mechanisms of Angiogenesis* Edited. Breier MC and G, editor. Berlin; 2005.
51. M. Christiane Brahim-Horn, Julie Laferrière, Nathalie Mazure and JP. *Tumor Angiogenesis Basic Mechanisms and Cancer Therapy*. Fusenig DM dan N, editor. New York: Springer; 2008.
52. Rubio ED, Schmol HJ. Critical Role of Anti-Angiogenesis and VEGF Inhibition in Colorectal Cancer. 2005;69(3): 4-16.
53. Olsson A, Dimberg A, Kreuger J, Claesson-welsh L. REVIEWS VEGF receptor signalling — in control of vascular function. 2006;7(May):359–71
54. Parikh AA, Fan F, Liu WB, Ahmad SA, Stoeltzing O, Reinmuth N, et al. Neuropilin-1 in Human Colon Cancer Expression, Regulation and Role in

- Induction of Angiogenesis. 2004;164(6):2139–51.
55. Cao Y, Guangqi E, Wang E, Pal K, Dutta SK, Barsagi D. VEGF Exerts an Angiogenesis-Independent Function in Cancer Cells to Promote Their Malignant Progression. 2012;72(16):3912–9.
 56. Goel HL, Mercurio AM. VEGF targets the tumour cell. *Nat Rev Cancer* 2014;13(12):871–82.
 57. Hansel DE, Wilentz RE, Yeo CJ. Expression of Neuropilin-1 in High-grade Dysplasia , Invasive Cancer , and Metastases of the Human Gastrointestinal Tract. 2004;28(3):347–56.
 58. Mohamed HAD, Sayed H, Kamel AAA, Yossef WT, Hammam MM. Correlation of Vascular Endothelial Growth Factor Expression and Neovascularization with Colorectal Carcinoma : A Pilot Study Abstract In the current study the expression of VEGF and neovascularization. 2016;1–14.
 59. Hedaya MS, Hazem A, Ezzat H, Hammam O. Cyclo-oxygenase-2 and vascular endothelial growth factor expression in colorectal cancer patients. 2015;35–40.
 60. Shu Zheng, Ming-Yong Han, Zuo-Xiang Xiao, Jia-Ping Peng QD. Clinical Significance of Vascular Endothelial Growth factor Expression and Neovascularization in Colorectal Carcinoma. *World J Gastroenterol*. 2003;9(6):1227–30.
 61. George ML, Tutton MG, Janssen F, Arnaout A, Abulafi AM, Eccles SA, et al. VEGF-A , VEGF-C , and VEGF-D in Colorectal Cancer Progression. *Neoplasia*. 2001;3(5):420–7.
 62. Araujo RF, Lira GA, Vilaca JA, Leitão MCA. Prognostic and diagnostic implications of MMP-2, MMP-9, and VEGF- α expressions in colorectal cancer. *Pathology – Research and Practice*. 2014.
 63. Lopez A, Harada K, Vasilakopoulou M, Shanbhag N, Ajani JA. Targeting Angiogenesis in Colorectal Carcinoma. *Drugs*. 2019
 64. Martins SF, Garcia EA, Alexandre M, Luz M, Pardal F, Rodrigues M, et al. Clinicopathological Correlation and Prognostic Significance of VEGF-A , VEGF-C, VEGFR-2 and VEGFR-3 Expression in Colorectal Cancer. 2013;68:55–67.
 65. Hutajulu SH, Paramita DK, Santoso J, Ivan M, Sani A, Amalia A, et al. Correlation between vascular endothelial growth factor-A expression and tumor location and invasion in patients with colorectal cancer. 2018;9(6):1099–108.
 66. Gunasekaran V, Ekawati NP, Sumadi IWJ. Karakteristik klinikopatologi karsinoma kolorektal di RSUP Sanglah, Bali, Indonesia tahun 2013-2017. 2019;10(3):552–6.

67. El-Shami K, Oeffinger KC, L Nicole, Willis A, Bretsch JK, Pratt-Chapman ML, et al. American Cancer Society Colorectal Cancer Survivorship Care Guidelines. 2015;65(6):427–55.
68. Syukri SA, et al. Profil Klinikopatologik Karsinoma Kolorektal di Laboratorium Patologi Anatomi di Sumatera Barat periode Juli 2016 sampai Juni 2017, Reevaluasi Subtipe Histopatologik Berdasarkan Klasifikasi WHO 2010. Fakultas Kedokteran Universitas Andalas. 2018
69. Ganggaiswari A, Kresno SB, Krisnuhoni E. VEGF Expression and Desmoplastic Reaction as Potential Progressive Factors in Young Patients with Colorectal Cancer. *Acta Med Indones-Indones J Intern Med*. 2010;42(1).
70. Mohamed SY, Mohammed HL, Ibrahim HM, Mohamed EM, Salah M. Role of VEGF, CD105, and CD31 in the Prognosis of Colorectal Cancer Cases. *Journal of Gastrointestinal Cancer*. 2019, 50(1):23-34.
71. Wahidin M, Noviani R, Hermawan S, Andriani V, Ardian A, Djarir H. Population-Based Cancer Registration in Indonesia. 2012;13:1709–10.
72. Izzaty AH. Hubungan Antara Faktor Usia dengan Kejadian Kanker Kolorektal Di RSUD Moewardi Surakarta Tahun 2010-2013. Universitas Muhammadiyah Surakarta; 2015.
73. Chacko L, Macaron C, Burke CA. Colorectal Cancer Screening and Prevention in Women. *Digestive Diseases and Sciences*. 2015; 60(3):698-710.
74. Clendenen T V, Koenig KL, Shore RE, Levitz M, Arslan AA, Zeleniuch-jacquotte A. Postmenopausal Levels of Endogenous Sex Hormones and Risk of Colorectal Cancer. 2009;18(January):275–82.
75. Ratnasari D, Mughni A, Yudhanto E, Budijitno S. Perbedaan Derajat Diferensiasi Adenokarsinoma Kolorektal pada Golongan Usia Muda, Baya dan Tua di RSUP Dr. Kariadi Semarang. 2012.
76. Anggunan. Hubungan Antara Usia dan Jenis Kelamin dengan Derajat Diferensiasi Adenokarsinoma Kolon Melalui Hasil Pemeriksaan Histopatologi Di RSUD Dr. H. Abdul Moeloek Provinsi Lampung. *Jurnal Medika Malahayati*. 2015;1(4):161–8.
77. Jayadi T, Tirtoprodjo P. Hubungan Ekspresi Protein NM23-H1, Densitas Limfovaskuler Peri-tumoral dan Invasi Limfovaskuler dengan Stadium dan Diferensiasi Histopatologi Adenokarsinoma Kolorektal. 2013;22(2).
78. Devianti L, Agus S. Hubungan antara Beberapa Faktor Prognostik Klinikopatologik Karsinoma Kolorektal di RSUD Dr. Achmad Mochtar Bukittinggi Tahun 2015-2017. *Jurnal Kesehatan Andalas*. 2017;8(2):269–74.

79. Betge J, Langner C. Vascular Invasion, Perineural Invasion, and Tumour Budding : Predictors of Outcome in Colorectal Cancer Vascular Invasion , Perineural Invasion , and Tumour Budding : Predictors of Outcome in Colorectal Cancer. *Acta Gastro-Enterologica Belgica*. 2011;(16):516-529.
80. Kim B, Kim JM, Kang GH, Chang HJ, Kang DW, Kim JH. Standardized Pathology Report for Colorectal Cancer , 2nd Edition. 2020. 1–19 p.
81. Yin Y, Cao LY, Wu WQ, et al. Blocking effects of siRNA on VEGF expression in human colorectal cancer cells. *World J Gastroenterol*. 2010;16:1086–92
82. Gravani K, Karameris A, Ph D, Kombouras C. Prognostic Significance of VEGF Expression Evaluated by Quantitative Immunohistochemical Analysis in Colorectal Cancer. 2008;107:99–107.
83. Wang FTAO, Sun WEI, Zhang JTAO, Fan YUEZU. Cancer - Associated Fibroblast Regulation of Tumor Neoangiogenesis as a Therapeutic Target in Cancer. 2019;3055–65.
84. Hashim AF, Al-janabi AA, Mahdi LH, Al-toriahi KM, Yasseen AA. Vascular Endothelial Growth Factor (VEGF) Receptor Expression Correlates with Histologic Grade and Stage of Colorectal Cancer. 2010;1:5–8.
85. Lesslie D, Parikh NU, Fan F, Trevino JG. Vascular Endothelial Growth Factor Receptor-1 Mediates Migration Of Human Colorectal Carcinoma Cells By Activation Of Src Family Kinases. *British Journal of Cancer*. 2006;94(11):1710–1717.
86. Fan F, Wey JS, Mccarty MF, Belcheva A, Liu W, Bauer TW, et al. Expression and Function of Vascular Endothelial Growth Factor Receptor-1 On Human Colorectal Cancer Cells. 2005;2647–53.
87. Chen M, Tzeng C, Chen P, Lin J, Lin T, Chen W, et al. VEGF -460T→C polymorphism and Its Association with VEGF Expression and Outcome to FOLFOX-4 Treatment In Patients With Colorectal Carcinoma. *Pharmacogenomics J*. 2011;(11):227–36.
88. Chekhonin VP, Shein SA, Korchagina AA, Gurina OI. VEGF in Tumor Progression and Targeted Therapy. *Current Cancer Drug Targets*. 2013;(13):423-443.
89. Bhattacharya R, Fan F, Wang R, Ye X, Xia L, Boulbes D, et al. Intracrine VEGF Signalling Mediates Colorectal Cancer Cell Migration and Invasion. 2017;117(6):848–55.
90. Pavlidis ET, Pavlidis TE. Role of Bevacizumab in Colorectal Cancer Growth and Its Adverse Effects. 2013;19(31):5051–60.

91. Liu W, Xu J, Wang M, Wang Q, Bi Y, Han M. Tumor-Derived Vascular Endothelial Growth Factor (VEGF)-A Facilitates Tumor Metastasis Through the VEGF-VEGFR1 Signaling Pathway. 2011;1213–20.
92. Raluca BA, Cimpean AM, Cioca A, Cretu O, Mederle O, Ciolofan A, et al. Endothelial Cell Proliferation and Vascular Endothelial Growth Factor Expression in Primary Colorectal Cancer and Corresponding Liver Metastases. 2015;16:4549–53.

