

结直肠癌脑转移的临床研究进展

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Title: Research progress in brain metastasis from colorectal cancer

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摘要: 脑是常见的恶性肿瘤转移部位之一, 多见于肺癌、乳腺癌及黑色素瘤。而结直肠癌脑转移发生率较低, 因此临床较为少见。近年来由于诊疗水平的提升及患者生存期的延长, 结直肠癌脑转移的发生率逐渐增加。本文将从结直肠癌脑转移的发生机制、高危因素、临床表现和预后因素等方面总结现阶段结直肠癌脑转移的研究现状和进展, 以期为进一步为结直肠癌脑转移的临床和科研工作提供参考。

Abstract: Bone is one of the most common metastatic sites of malignant tumors, which is commonly observed in lung cancer, breast cancer and melanoma, while it is extremely rare in colorectal cancer. In recent years, the incidence of brain metastasis in colorectal cancer has been increased due to the improvement of diagnosis and the extension of patients' survival. This article aims to summarize the clinical research status and progress of colorectal cancer with brain metastasis from mechanisms of brain metastasis, risk factors, clinical manifestations and prognostic factors, providing reference for clinical and research work for brain metastasis of colorectal cancer.

参考文献/REFERENCES

- [1] Taillibert S, Le Rhun E. Epidemiology of brain metastases [J]. *Cancer Radiother*, 2015, 19(1): 3-9.
- [2] Noura S, Ohue M, Shingai T, et al. Brain metastasis from colorectal cancer: Prognostic factors and survival [J]. *J Surg Oncol*, 2012, 106: 144-148.
- [3] Christensen TD, Spindler KL, Palshof JA, et al. Systematic review: Brain metastases from colorectal cancer-incidence and patient characteristics [J/OL]. *BMC Cancer*, 2016, 16: 260.
- [4] Hugen N, Van de Velde CJ, De Wilt JH, et al. Metastatic pattern in colorectal cancer is strongly influenced by histological subtype [J]. *Ann Oncol*, 2014, 25(3): 651-657.
- [5] Christensen TD, Palshof JA, Larsen FO, et al. Risk factors for brain metastases in patients with metastatic colorectal cancer [J]. *Acta Oncol*, 2017, 56(5): 639-645.
- [6] Temple DF, Ledesma EJ, Mittelman A. Cerebral metastases. From adenocarcinoma of the colon and rectum [J]. *N Y State J Med*, 1982, 82(13): 1812-1814.
- [7] Chyun Y, Hayward E, Lokich J. Metastasis to the central nervous system from colorectal cancer [J]. *Med Pediatr Oncol*, 1980, 8(3): 305-308.
- [8] Kim HJ, Huh JW, Jung TY, et al. Clinical outcome with gamma-knife surgery or surgery for brain metastases from colorectal cancer [J]. *Clin Neurosci*, 2013, 20(10): 1417-1421.
- [9] Sundermeyer ML, Meropol NJ, Rogatko A, et al. Changing patterns of bone and brain metastases in patients with colorectal cancer [J]. *Clin Colorectal Cancer*, 2005, 5(2): 108-113.
- [10] Yaeger R, Cowell E, Chou JF, et al. RAS mutations affect pattern of metastatic spread and increase propensity for brain metastasis in colorectal cancer [J]. *Cancer*, 2015, 121(8): 1195-1203.
- [11] Chiang JM, Hsieh PS, Chen JS, et al. Rectal cancer level significantly affects rates and patterns of distant metastases among rectal cancer patients post curative-intent surgery without neoadjuvant therapy [J]. *World J Surg Oncol*, 2014, 12: 197.
- [12] Van Gestel YR, De Hingh IH, Van Herk-Sukel MP, et al. Patterns of metachronous metastases after curative treatment of colorectal cancer [J]. *Cancer Epidemiol*, 2014, 38(4): 448-454.
- [13] Go PH, Klaassen Z, Meadows MC, et al. Gastrointestinal cancer and brain metastasis: A rare and

ominous sign [J] .Cancer, 2011, 117(16): 3630-3640.

[14] Yumoto K, Eber MR, Berry JE, et al.Molecular pathways: Niches in metastatic dormancy [J] .Clin Cancer Res, 2014, 20(13): 3384-3389.

[15] Braun S, Pantel K.Micrometastatic bone marrow involvement: Detection and prognostic significance [J] .Med Oncol, 1999, 16(3): 154-165.

[16] Versteeg HH.Tissue factor: Old and new links with cancerbiology [J] .Semin Thromb Hemost, 2015, 41(7): 747-755.

[17] Chiovaro F, Martina E, Bottos A, et al.Transcriptional regulation of tenascin-W by TGF-beta signaling in the bone metastatic niche of breast cancer cells [J] .Int J Cancer, 2015, 137(8): 1842-1854.

[18] Ruppender N, Larson S, Lakely B, et al.Cellular adhesion promotes prostate cancer cells escape from dormancy [J] .PLoS One, 2015, 10(6): e0130565.

[19] Kim DY, Ryu CG, Jung JE, et al.Brain metastasis from colorectal cancer: A single center experience [J] .Ann Surg Treat Res, 2018, 94(1): 13-18.

[20] Zang YW, Gu XD, Xiang JB, et al.Brain metastases from colorectal cancer: Microenvironment and molecular mechanisms [J] .Int J Mol Sci, 2012, 13: 15784-15800.

[21] Rico GT, Price TJ, Karapetis C, et al.Brain metastasis in advanced colorectal cancer: Results from the South Australian metastatic colorectal cancer(SAMCRC) registry [J] .Cancer Biol Med, 2017, 14(4): 371-376.

[22] Jung M, Ahn JB, Chang JH, et al.Brain metastases from colorectal carcinoma: Prognostic factors and outcome [J] .J Neurooncol, 2011, 101(1): 49-55.

[23] Gu XD, Cai YT, Zhou YM, et al.Prognostic factors and multidisciplinary treatment modalities for brain metastases from colorectal cancer: Analysis of 93 patients [J] .BMC Cancer, 2015, 15: 902.

[24] Michl M, Thurmaier J, Schubert-Fritschle G, et al.Brain metastasis in colorectal cancer patients: Survival and analysis of prognostic factors [J] .Clin Colorectal Cancer, 2015, 14(4): 281-290.

[25] Paixa A, Antonia D, Adeduntanc R, et al.Stereotactic radiation therapy of brain metastases from colorectal cancer: A single institution cohort [J] .Cancer Radiother, 2017, 21(3): 199-204.

[26] Dong Q, Zhang Y, Yang Y, et al.Analysis on the clinical efficacy of temozolomide combined with whole brain radiotherapy in the treatment of colorectal cancer complicated with brain metastases [J] .China Modern Doctor, 2017, 55 (26) : 62-64.

[27] Damiens K, Ayoub JP, Lemieux B, et al.Clinical features and course of brain metastases in colorectal cancer: An experience from a single institution [J] .Curr Oncol, 2012, 19: 254-258.

[28] Nieder C, Hintz M, Grosu AL.Colorectal cancer metastatic to the brain: Analysis of prognostic factors and impact of KRAS mutations on presentation and outcome [J] .Clinical And Translational Oncology, 2016, 18(1): 88-92.

[29] Sperduto PW, Chao ST, Sneed PK, et al.Diagnosis-specific prognostic factors, indexes, and treatment outcomes for patients with newly diagnosed brain metastases: A multi-institutional analysis of 4 259 patients [J] .Int J Radiat Oncol Biol Phys, 2010, 77: 655-661.

[30] Nieder C, Andratschke NH, Geinitz H, et al.Diagnosis-specific graded prognostic assessment score is valid in patients with brain metastases treated in routine clinical practice in two European countries [J] .Med Sci Monit, 2012, 18: CR450-455.

[31] Hammoud MA, McCutcheon IE, Elsouki R, et al.Colorectal carcinoma and brain metastasis: Distribution, treatment, and survival [J] .Ann Surg Oncol, 1996, 3: 453-463.

[32] Suzuki Y, Yamaguchi T, Matsumoto H, et al.Prognostic factors and treatment effects in patients with curatively resected brain metastasis from colorectal cancer [J] .Dis Colon Rectum, 2014, 57: 56-63.

[33] Skeie BS, Enger P, Ganz JC, et al.Gamma knife surgery of colorectal brain metastases: A high prescription dose of 25 Gy may improve growth control [J] .World Neurosurg, 2013, 79: 525-536.

[34] Fokas E, Henzel M, Hamm K, et al.Multidisciplinary treatment of brain metastases derived from colorectal cancer incorporating stereotactic radiosurgery: Analysis of 78 patients [J] .Clin Colorectal Cancer, 2011, 10: 121-125.

[35] Tanriverdi O, Kaytan-Saglam E, Ulger S, et al.The clinical and pathological features of 133 colorectal cancer patients with brain metastasis: A multicenter retrospective analysis of the gastrointestinal tumors working committee of the turkish oncology group (TOG) [J] .Med Oncol, 2014, 31: 152.

[36] Nozawa H, Ishihara S, Kawai K, et al.Brain metastasis from colorectal cancer: Predictors and treatment outcomes [J] .Oncology, 2017, 93 (5) : 309-314.

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