MIF-173位点基因多态性与胃癌易感性的Meta分析

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Title: **Association between polymorphism of macrophage migration inhibitory factor gene-173 locus and susceptibility of gastric cancer:A Meta-analysis**

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摘要: 目的:探讨胃癌与巨噬细胞迁移抑制因子(macrophage migration inhibitory factor,MIF)基因173位点基因多态性之间风险的相关性。方法：计算机检索Embase、Cochrane、PubMed、中国生物医学文献数据库、中国知网、维普及万方数据库,检索时间截止至2018年3月4 日。收集胃癌的发生发展与MIF-173位点基因多态性的病例-对照研究。依据纳入标准和排除标准，由2名收集者独立获取文献，提取数据并予以评价其质量。RevMan 5.3软件进行系统分析。结果：一共有4个病例-对照研究被纳入研究中,其中有1 014 例患者和1 236 例对照者。系统分析最终结果显示,在3个遗传模型中MIF基因173位点单核苷酸多态性与胃癌易感性的相关性差异具有统计学意义［显性遗传模型 CC+GC vs GG:OR=1.24,95%CI:1.04~1.47;隐性遗传模型CC vs GC+GG:OR=1.84,95%CI:1.15~2.95;共显性遗传模型CC vs GG:OR=1.87,95%CI:1.34~2.59］,在共显性遗传模型GC vs GG中,两者差异无统计学意义(OR=1.12,95%CI:0.94~1.35)。结论：MIF-173位点单核苷酸多态性与胃癌易感性明显相关,基因型CC+GC和CC会加大胃癌发生的风险。

Abstract: Objective:To explore the correlation between macrophage migration inhibitory factor (MIF) 173C/G polymorphism and risks of gastric cancer.Methods:We searched Embase,Cochrane,PubMed,CBM,CNKI,VIP and WanFang database,until Mar.4th,2018.Document was acquired independently by the two collectors according to inclusion and exclusion criteria.System analysis was performed by RevMan 5.3 software.Results:A total of four case-control studies were included in the study,including 1 014 patients and 1 236 controls.There was a significant correlation between susceptibility of gastric cancer and the MIF-173 single nucleotide polymorphism［CC+GC vs GG:OR=1.24,95%CI:1.04~1.47,CC vs GC+GG:OR=1.84,95%CI:1.15~2.95,CC vs GG:OR=1.87,95%CI:1.34~2.59］.However,there was no significant association between MIF 173C/G polymorphism and the risk of gastric cancer in GC vs GG models (OR=1.12,95%CI:0.94~1.35).Conclusion:MIF 173C/G polymorphism is associated with the susceptibility of gastric cancer and genotype CC+GC and CC can increase the risks of suffering from gastric cancer.

参考文献/REFERENCES

［1］ Wang WM,Liu JC.Effect and molecular mechanism of mir-146a on proliferation of lung cancer cells by targeting and regulating MIF gene［J］.Asian Pac J Trop Med,2016,9(8):806-811.
[2] Lai YC,Chuang YC,Chang CP,et al.Macrophage migration inhibitory factor has a permissive role in concanavalin A-induced cell death of human hepatoma cells through autophagy［J］.Cell Death Dis,2015,6:e2008.
[3] Hu CT,Guo LL,Feng N,et al.MIF,secreted by human hepatic sinusoidal endothelial cells,promotes chemotaxis and outgrowth of colorectal cancer in liver prometastasis［J］.Oncotarget,2015,6(26):22410-22423.
[4] Zeng Xiantao,Liu Hui,Chen Xi,et al.Meta analysis series No.4:Quality assessment tool for observational research［J］.Chinese Journal of Evidence-Based Cardiovascular Medicine,2012,4(4):297-299.［曾宪涛，刘慧，

陈曦，等．Meta分析系列之四：观察性研究的质量评价工具［J］．中国循证心血管医学杂志，2012,4(4):297-299．]
[5] Zhou SZ,Hu PJ,Zeng ZR,et al.Association of MIF-173 locus polymorphism and gastric cancer in China［J］.Chinese Journal of Pathophysiology,2005,21(6):1132-1135．[周韶璋,胡品津,曾志荣,等.MIF-173位点单核苷酸多态性与我国胃癌关系的研究［J］.中国病理生理杂志,2005,21(6):1132-1135.]
[6] Zeng Y.Mutation of miR-146a and MIF genes and genetic susceptibility to gastric cancer［D］.Nanjing Medical University,2010.［曾樱.miR-146a和MIF基因多态性与胃癌遗传易感性研究［D］.南京医科大学,2010.]
[7] Arisawa T,Tahara T,Shibata T,et al.Functional promoter polymorphisms of the macrophage migration inhibitory factor gene in gastric carcinogenesis［J］.Oncol Rep，2008，19(1):223-228.
[8] Li H,Zang J,Wang P,et al.Gastric cancer susceptibility in gastric cancer relatives:Attributable risks of macrophage migration inhibitory factor promoter polymorphism and Helicobacter pylori［J］.Cytokine，2012，60(2):346-351.
[9] Cao Mengjiao,Liu Lin,Li Huiyan,et al.The relationship between polymorphism of MIF gene and Helicobacter pylori infection and non-cardiac gastric cancer［J］.Journal of Gastroenterology and Hepatology,2017,26(06):693-696.［曹梦姣,刘琳,李慧艳,等.MIF基因多态性与幽门螺杆菌感染及非贲门胃癌关系的研究［J］.胃肠病学和肝病学杂志,2017,26(06):693-696.]
[10] Ou Yurong,Kang Min,Zhou Lei,et al.Relationship between Helicobacter pylori L-type infection and the expression of MIF,MMP9 and VEGF in gastric cancer ［J］.Journal of Southern Medical University,2014,34(2):180-187.［欧玉荣，康敏，周蕾，等．胃癌中幽门螺杆菌L型感染与MIF、MMP9、VEGF表达的关系［J］．南方医科大学学报，2014，34(2)：180-187．]
[11] Olbermann P,Josenhans C,Moodley Y,et al.A global overview of the genetic and functional diversity in the Helicobacter pylori cagpathogenicity island［J］.PLoS Genet,2010,6(8):e1001069.
[12] Michel M,Michael P,Pia Z,et al.Macrophage migration inhibitory factor expression in human malignant gliomas contributes to immune escape and tumour progression［J］.Acta Neuropathol,2011,122(3):353-365.
[13] Troeger JS,Schwabe RF.Hypoxia and hypoxiainducible factor 1 alpha:Potential links between angiogenesis and fibrogenesis in hepaticstellate cells［J］.Liver International,2011,31(2):143-145.
[14] Shi Guannan,Dai Fu,Xia Yang,et al.Effect of hypoxia on epithelial mesenchymal transition in gastric cancer cells［J］.Journal of Anhui Medical University,2012,47(12):1397-1400.［史冠男,戴夫,夏阳,等.低氧诱导对胃癌细胞发生上皮间质转化的影响［J］.安徽医科大学学报,2012,47(12):1397-1400.]
[15] Yoo SA,Leng L,Kim BJ,et al.MIF allele-dependent regulation of the MIF coreceptor CD44 and role in rheumatoid arthritis［J］.Proc Natl Acad Sci USA,2016,113(49):E7917-E7926.
[16] Bao Yang.Expression and clinical significance of MIF and MMP-9 in gastric cancer［D］.Anhui Medical University,2014.［包泱.MIF、MMP-9 在胃癌组织中的表达及临床意义［D］.安徽医科大学，2014.]
[17] He LJ,Xie D,Hu PJ,et al.Macrophage migration inhibitory factor as a potential prognostic factor in gastric cancer ［J］.World J Gastroenterol,2015,21(34):9916-9926.

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