

MicroRNA-218通过EMT抑制肿瘤侵袭转移的研究进展

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Title: Advances in microRNA-218 inhibiting tumor invasion and metastasis through EMT

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摘要: microRNA (miRNA) 是非编码RNA, 在基因转录后调节中发挥重要作用。miRNA在进化中具有高度保守性, 能够通过其靶mRNA特异性碱基互补配对引起靶mRNA降解或抑制其翻译从而发挥对基因转录后表达调控作用。由于miRNA在血清和血浆中均很容易获得且在循环系统中miRNA作为稳定的标记物存在, 故miRNA是一种很有前途的诊断因子。最新研究发现miR-218在多种恶性肿瘤(如肺癌、胃癌、肝癌、前列腺癌及结直肠癌等)的侵袭转移机制中发挥重要作用且多作为抑癌因子存在, 但目前对miR-218在肿瘤侵袭转移中所涉及的具体作用靶点及相关通路的研究仍具有局限性。而上皮细胞-间充质转化(EMT)在上皮来源的恶性肿瘤的侵袭转移过程中发挥重要作用, 本文就miR-218通过EMT途径在几种常见肿瘤侵袭转移机制中所涉及的作用靶点及相关通路作一简要综述, 旨在为miR-218在恶性肿瘤的诊断及预后评估中的作用提供参考。

Abstract: MicroRNA (miRNA) is a non-coding RNA, which plays an important role in post-transcriptional regulation of genes. MicroRNAs are highly conservative in evolution and can play a regulatory role in post-transcriptional gene expression by pairing with target-specific bases to induce degradation or inhibit translation of target genes. Because microRNAs are readily available in serum and plasma and exist as stable markers in circulatory system, microRNAs are a promising diagnostic factor. Recent studies have found that microRNA-218 plays an important role in the invasion and metastasis mechanism of various malignant tumors (such as lung cancer, gastric cancer, liver cancer, prostate cancer and colorectal cancer) and mostly exists as an anti-cancer factor. However, the research on specific targets and related pathways of microRNA-218 in the invasion and metastasis of tumors is still limited. Epithelial-mesenchymal transition (EMT) plays an important role in the invasion and metastasis of epithelial-derived malignant tumors. In this review, we summarize the targets and related pathways of microRNA-218 through EMT pathway in several common mechanisms of invasion and metastasis of tumors. The aim of this study is to provide a reference for the role of microRNA-218 in the diagnosis and prognosis evaluation of malignant tumors.

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