

6.The Roles of Extracellular Vesicles in Gastric Cancer Development, Microenvironment, Anti-Cancer Drug Resistance, and Therapy

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文章简介

胃癌, 基于其诊断延迟和转移频率高等特点, 是癌症相关死亡的主要原因之一。由于生物活性分子可被递送到受体细胞以影响它们的生物学特性, 并改变其周围的微环境, 而这些生物分子几乎都包含于细胞外囊泡 (EV) 中。因此, 对细胞外囊泡的研究有助于对胃癌生长、转移、免疫逃避以及化疗耐药等机制的深入认识。该综述总结了胃癌衍生的 EV 对肿瘤微环境的影响以及微环境衍生的 EV 在胃癌中的功能, 并讨论了肿瘤与微环境之间的双向通信对胃癌生长、转移行为、免疫应答以及耐药性的影响, 可为 EV 在胃癌中的作用研究提供有价值的参考。

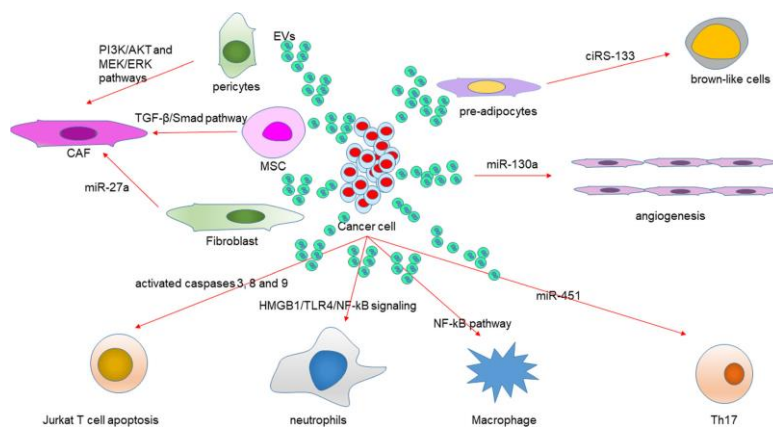


Fig. The functional network of cancer derived EVs in GC microenvironment. GC cells-derived EVs promote angiogenesis via releasing miR-130a. Pericytes, MSCs, and fibroblasts absorbed EVs to induce CAFs transformation in tumor microenvironment through different pathway or miRNAs in cells. The functions of cancer cells-derived EVs in adipocytes differentiation. Different immune cells in tumor microenvironment can be affected by tumor-derived EVs. GC-derived EVs inhibit T cell immunity, polarize neutrophils to a pro-tumor phenotype, induce macrophages to release more proinflammatory factors and active Th17 to promote cancer progression. Abbreviations:

GC, gastric cancer; MSC, mesenchymal stem cell; CAF, cancer-associated fibroblast.