自噬在恶性肿瘤治疗中的进展及影像学应用前景

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Title: The progress of autophagy in the treatment of malignant tumors and imaging applications

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摘要: 自噬是在营养缺乏条件下维持细胞代谢的主要途径。这使其成为肿瘤研究的新热点，调控自噬信号通路的机制已经很明确，越来越多的研究发现机体细胞自噬活性变化对肿瘤治疗的效果具有巨大影响。但缺乏能够重复比较或靶向定位自噬活性的测量技术。正电子示踪剂PET等影像手段通过将相关自噬的信号通路蛋白标记放射性核素进行显像似乎具有解决这些问题的潜力。在本文中，我们综述自噬在肿瘤治疗中的应用，并展望医学影像技术协助自噬治疗肿瘤的前景。

Abstract: Autophagy is the main way to maintain cell metabolism under nutrient deficiencies.This has made it a new hot spot in cancer research.The mechanism of regulating autophagy signaling pathway has been very clear.More and more studies have found that the change of autophagic activity of the cell body has a great influence on the curative effect of anti-tumor therapy.However，there is a lack of measurement technology that can repeatedly compare or target the localization of autophagy activity.Positron-tracer imaging tools such as PET appear to have the potential to solve these problems by visualizing relevant autophagic signaling protein labeled radionuclides.In this article，we review the use of autophagy in cancer therapy.Finally，we look to the future of medical imaging techniques to assist autophagy in the treatment of tumors.

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