免疫检查点PD-1/PD-L1阻断剂耐药机制的研究进展

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Title: Research progresson on resistance mechanism of immune checkpoint PD-1/PD-L1 blockade agents

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关键词: 免疫检查点; PD-1/PD-L1; 免疫治疗; 耐药机制

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摘要: 免疫检查点蛋白通过复杂机制抑制抗肿瘤免疫，进而介导恶性肿瘤的“免疫逃逸”。2018年诺贝尔生理学或医学奖的两位得主发现了抑制上述机制的癌症疗法，为人类抗肿瘤治疗带来曙光。近年来，针对程序性死亡受体-1（PD-1）/程序性死亡受体配体-1（PD-L1）的免疫检查点阻断治疗在多种恶性肿瘤中取得较好疗效，将肿瘤免疫治疗推向新的里程碑。然而继之出现的耐药问题，限制了其临床应用，成为这一领域新的难题。本文就PD-1/PD-L1阻断剂耐药现象及相关机制作一综述。

Abstract: Immune checkpoint proteins inhibit anti-tumor immunity through complex mechanisms,which in turn mediates the "immune escape" of malignant tumors.Two winners of the 2018 Nobel Prize in Physiology or Medicine have discovered cancer therapies that inhibit these mechanisms,bringing dawn to human anti-cancer treatment.In recent years,immune checkpoints blockade therapy for programmed death receptor-1 (PD-1)/programmed death receptor ligand-1 (PD-L1) has achieved good results in a variety of malignant tumors,pushing tumor immunotherapy to a new milestone.However,the emergence of drug resistance restricts its clinical application and poses new challenges to this field.In this artical,we reviewed the drug resistance phenomenon and related mechanisms of PD-1/PD-L1 blokers.

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