

论著

## 海生多糖肽对辐射诱发小鼠肝细胞POD和Caspase-3异常表达的影响

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**摘要** 背景与目的: 探讨海生多糖肽(Haishen polysaccharide peptide, HPP)制剂对辐射引发小鼠肝细胞凋亡和凋亡基因异常表达的影响。材料与方法: 将饲以150 mg/kg和100 mg/kg HPP制剂的小鼠用<sup>60</sup>Co γ射线全身急性照射, 体内灌注固定肝组织, 采用原位末端标记和原位杂交技术检测肝细胞辣根过氧化氢酶(Peroxidase,POD)和半胱氨酸蛋白酶-3(Caspase-3)的阳性表达水平。结果: 辐射损伤组POD和Caspase-3阳性表达率分别为(40.0±3.5)%和(26.0±1.2)%, 高剂量海生多糖肽组分别为(23.9±3.8)%和(6.0±1.5)%, 差异有统计学意义(P<0.01) 结论: 海生多糖肽可抑制辐射引发的小鼠肝细胞POD和Caspase-3异常表达, 抑制肝细胞损伤和凋亡。

**关键词** [海洋生物](#); [原位杂交](#); [半胱氨酸蛋白酶-3](#); [凋亡](#)

## The Effect of HPP on Abnormal Expression of Mice Hepatic Cells POD and Caspase-3

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**Abstract BACKGROUND & AIM:** To study the effect of (Haishen polysaccharide peptide,HPP) on the apoptosis and apoptosis gene of mice hepatic cells induced by <sup>60</sup>Co-γ irradiation. **MATERIAL AND METHODS:** Mice were fed 150 mg/kg and 100 mg/kg HPP for four weeks. Mice were then irradiated with <sup>60</sup>Co-γ to induce hepatic cells apoptosis once a day five days a week. Four weeks later, in situ cell death detection kit and in situ hybridization were applied to measure qualitative changes at expression level of POD and Caspase-3 positive cells rate to analyze the apoptosis of mice hepatic cells. **RESULTS:** The rates of POD and Caspase-3 expression in the radiation-injury group were(40.0±3.5)% and(26.0±1.2)%, respectively,and the rates of the high dose group were(23.9±3.8)% and (6.0±1.5)%, respectively, the difference between the radiation-injury group and high dose group showed statistical significance (P<0.01).**CONCLUSION:** HPP had a significant inhibitory effect on the abnormal hepatic expression of POD and Caspase-3 induced by radioactive damage.

**Keywords** [marine biology](#) [in situ hybridization](#) [Caspase-3](#) [apoptosis](#)

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