

than that of irradiation group, which accord with Wang L *et al*'s study^[10] in protective effect of VA and VE on irradiation. Its reason may be that hydroxy is primary free radical, and puperoxide anion comes into being when oxygen exists. CAT, GSH-Px, and SOD constitute the anti-oxidant system, which coordinately eliminate free radical. SI group, through efficiently increasing the activity of CAT and GSH-Px, alleviated the lipid peroxidation of hepatocyte, though their SOD level was lower than that of irradiation group. Our pathology results also hold out the protective effect of SI (in press). These results also suggested that the anti-oxidant effect of SI was similar to that of VE^[11], which can clear away puperoxide anion and peroxide.

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大豆异黄酮对⁶⁰Co-γ 线照射小鼠肝组织过氧化状态的影响

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[摘要] **目的:**观察大豆异黄酮对⁶⁰Co-γ 射线引起小鼠肝组织过氧化损伤的影响。**方法:**实验根据体质量将 80 只雌性昆明小鼠随机均分为 5 组,即正常对照、阳性对照(单纯辐照组)及低、中、高剂量大豆异黄酮实验组(50、100、400 mg/kg)。辐照前正常对照、阳性对照组及实验组每天分别以溶剂 0.5% 羧甲基纤维素钠(CMC-Na)和不同剂量大豆异黄酮连续灌胃 14 d,灌胃至第 7 天,除正常对照组外,其余各组小鼠均接受 4.56 Gy ⁶⁰Co-γ 全身性照射 1 次,照射后继续灌胃 2 d 及 7 d 后杀鼠取肝组织作生化分析。**结果:**照射后第 2 天 100、400 mg/kg 大豆异黄酮组及照射后第 7 天 3 个浓度大豆异黄酮组显著提高肝细胞质过氧化氢酶的活性(P<0.05);照射后第 7 天 100 mg/kg 大豆异黄酮组的肝组织谷胱甘肽过氧化物酶活性有显著提高(P<0.05);照射后第 2 天 50 mg/kg 大豆异黄酮使肝组织总超氧化物歧化酶活性显著下降(P<0.05),其余各组间无显著差异;照射后第 7 天 100 mg/kg 大豆异黄酮使肝组织丙二醛含量下降,与对照组有显著差异(P<0.05),照射后第 2 天各照射组肝组织丙二醛含量有一过性升高,但第 7 天实验组已降至正常水平。**结论:**大豆异黄酮可提高受照小鼠肝组织的抗氧化能力,但不呈量效关系。

[关键词] 肝损伤;γ 射线;自由基;抗氧化酶;大豆异黄酮

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