

论著

瘦素对缺氧复氧L02肝细胞凋亡及Fas/FasL表达的影响

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摘要 目的: 观察瘦素(leptin)对缺氧复氧人正常肝细胞(L02)凋亡的影响。方法: 将L02细胞分别分为正常对照组、单纯缺氧12 h复氧组(IR组)和缺氧12 h复氧加不同浓度的瘦素(分别为100 μg/L、200 μg/L、400 μg/L、800 μg/L和1 600 μg/L)干预组,以流式细胞仪分析、DNA缺口末端标记(TUNEL)试验、荧光定量PCR等方法观察leptin对L02肝细胞凋亡、Fas/FasL mRNA表达的影响。结果:(1)与正常对照组相比,IR组细胞凋亡率和TUNEL细胞阳性率增加(P<0.01),加用不同浓度瘦素干预组的细胞凋亡率和TUNEL细胞阳性率与IR组相比明显下降(P<0.05);(2)与正常对照组相比,IR组L02细胞中Fas/FasL mRNA表达明显上调(P<0.01);加用不同浓度瘦素干预组与IR组相比,Fas/FasL mRNA表达下降,以400 μg/L瘦素作用明显,结果有显著差异(P<0.05)。结论:瘦素能减轻缺氧复氧培养L02肝细胞的凋亡,其机制可能与其下调细胞中Fas/FasL mRNA的表达有关。

关键词 [细胞凋亡](#); [肝](#); [缺氧-复氧](#); [L02细胞](#); [瘦素](#); [Fas/FasL](#)

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Effects of leptin on hypoxia-reoxygenation induced apoptosis in human L02 cells and expression of Fas and FasL

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Abstract

AIM: To observe the effect of leptin (LEP) on hypoxia-reoxygenation induced apoptosis in L02 cells.METHODS: In the experiment, L02 cell injury was induced by hypoxic air (95%N₂ and 5% CO₂). The cultured L02 cells were divided into hypoxic 12 h group (IR group) alone, normal control group and the hypoxic plus leptin (100 μg/L, 200μg/L, 400 μg/L, 800 μg/L and 1 600 μg/L) treatment groups in vitro. Flow cytometry, terminal dUTP nick-end labeling (TUNEL) assay and fluorescent quantitative PCR were used to measure the changes of apoptosis in L02 cells and expression of Fas/FasL mRNA.RESULTS: (1) The percentage of L02 cells apoptosis and positive TUNEL cells significantly increased in IR group compared to control group (P<0.01). When L02 cells were treated with LEP, the percentage of cell apoptosis and positive TUNEL cells were decreased compared to IR group. (2) Compared to control group, the Fas/FasL mRNA expression significantly increased in IR group (P<0.01). When L02 cells were treated with LEP, the Fas/FasL mRNA expression decreased compared to IR group, the effect of LEP at concentration of 400 μg/L was obviously (P<0.05). CONCLUSION: LEP decreases the apoptosis of hypoxic-reoxygenation L02 cells by down-regulation of Fas/FasL mRNA expression in L02 cells.

Key words [Apoptosis](#) [Liver](#) [Hypoxia-reoxygenation](#) [L02 cells](#) [Leptin](#) [Fas/FasL](#)

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