

عنوان مقاله:

Effect of Ghrelin on Bax/Bcl- γ Gene Expression Ratio in Lung Tissue of Rats with Chronic Hypoxia

محل انتشار:

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خلاصه مقاله:

Background and Objective: Ghrelin has different functions in the body and one of its newly known roles is the antiapoptotic effect. However, this effect of ghrelin has not been considered in the probable hypoxia induced apoptosis in the animal lung tissue. The aim of this study was to examine the effect of ghrelin treatment on Bax/Bcl- γ gene expression in the lung tissue of rats with chronic hypoxia. **Materials and Methods:** Twenty four male Wistar rats were divided in three experimental groups of normal, hypoxic+saline and hypoxic+ghrelin and were treated for γ weeks. The expression level of Bax and Bcl- γ genes were assessed using Real-Time PCR in isolated lung tissues of all animals. In addition, histological changes of pulmonary arteries were examined following Hematoxylin-Eosin staining of the isolated tissues. **Results:** Chronic hypoxia caused pulmonary artery wall thickness and treatment with ghrelin reversed the changes to the normal. Keeping animals under chronic hypoxia treated or not with ghrelin had no significant effect on Bax/Bcl- γ gene expression ratio as measured in the total lung. **Conclusion:** Ghrelin treatment restores the histological changes induced by chronic hypoxia in rats. However, no significant changes in Bax/Bcl- γ gene expression ratio as a marker of cell apoptosis seem to occur in the isolated lung tissues, even after ghrelin treatment. Further similar studies especially in vascular endothelial and smooth muscle cells are recommended.

کلمات کلیدی:

Keywords: Ghrelin, Chronic Hypoxia, Lung, Bax/Bcl- γ , Rat

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