

## عنوان مقاله:

Resveratrol protects against diet-induced atherosclerosis by reducing low-density lipoprotein cholesterol and inhibiting inflammation in apolipoprotein E-deficient mice

## محل انتشار:

مجله علوم پایه پزشکی ایران، دوره 18، شماره 11 (سال: 1394)

تعداد صفحات اصل مقاله: 9

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## خلاصه مقاله:

**Objective(s):** Resveratrol (RES) is a polyphenol compound that has been shown a promising cardioprotective effect. However, some reports have yielded conflicting findings. Herein, we investigated the anti-atherosclerotic effects of RES in apolipoprotein E (apo E)-deficient mice on a high cholesterol diet. **Materials and Methods:** Firstly, atherosclerosis was induced by feeding a high cholesterol diet to apo E-deficient mice. Then, we examined its effects on weight control, and serum interleukin-۶ (IL-۶) levels and used histopathological methods to analyze morphology and inflammatory marker of atherosclerotic lesions in mice orally supplemented with high (۲۵ mg/kg/day) and low (۵ mg/kg/day) doses of RES for ۸ weeks. **Results:** Mice with high dose of RES had reduced epididymal fat pads, and lower serum IL-۶ levels compared with those of control mice. Moreover, RES in high doses also decreased the low-density lipoprotein cholesterol (LDL-C) levels and atherogenic index (LDL-C/HDL-C) in the mice. Dissection of high-dose RES-treated mice revealed a marked reduction in fat deposition, percentage of mice with atherosclerotic lesion, and intima/media ratio in the aortic areas. The expressions of macrophage-specific marker F۴/۸۰ and cardiovascular inflammatory marker NF-κB in atherosclerotic vessels were both diminished in the atherosclerotic vessels of high-dose RES-supplemented apo E-deficient mice. **Conclusion:** These results suggest that RES prevented the effects of a high cholesterol diet on the rate of accretion in atherosclerosis progression by reducing the LDL-C levels and suppressing atherosclerotic inflammation. RES can therefore be valuable in the development of new anti-atherosclerotic agents.

## کلمات کلیدی:

Atherosclerosis, Inflammation, Low-density lipoprotein- cholesterol, Resveratrol

## لینک ثابت مقاله در پایگاه سیویلیکا:

