

New approaches in protecting against atherosclerosis in experimental model of postmenopause.

ABSTRACT

This work is aimed to evaluate the ability of *Myrtus communis* leaves extract in attenuating endothelial dysfunction as well as risk of atherosclerosis in ovariectomized rats as a common model of post menopause. Total 60 female albino rats, weighing 180 g were used and assigned to four groups (sham, sham and *Myrtus communis* leaves extract, ovariectomized rats (OVX) and ovariectomized treated rats with *Myrtus communis* leaves extract). Plasma estrogen, lipid profile, asymmetric dimethylarginine (ADMA), von Willebrand factor (vWF), interleukin 1beta (IL-1 β), Lipoxin A4 (LXA4), aortic oxidant and antioxidant in addition to erythrocyte membrane fatty acids were determined. OVX rats showed a significant increase in inflammatory and oxidant parameters while, *Myrtus communis* extract administration (100 mg/kg body weight) for two months attenuates these values in treated group. *Myrtus communis* leaves extract confirmed our idea in protecting from atherosclerosis and endothelial dysfunction in ovariectomized rats due to its high content of anti-oxidant and anti-inflammatory compounds in addition to its high content of ω -3 fatty acids.