

Red wine extract, resveratrol, on maintenance of organ function following trauma-hemorrhage

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Running Title: Role of red wine extract following injury

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ABSTRACT:

Resveratrol, is a polyphenol that can be extracted from grapes and red wine, possess potential anti-inflammatory effects, which would result in the reduction of cytokine production, the alteration of the expression of adhesion molecule molecules, and the inhibition of neutrophil function. Resveratrol might also act as an antioxidant, anti-aging, and control of cell cycle and apoptosis. Resveratrol has been shown to have protective effects for patients in shock-like states. Such protective phenomenon is reported to be implicated in a variety of intracellular signaling pathways including the regulation of the mitogen-activated protein kinases (MAPK)/ hemeoxygenase-1 (HO-1) pathway, activates estrogen receptor (ER), and the mediation of pro-inflammatory cytokines, reactive oxygen species (ROS) formation and reactive. Moreover, through anti-inflammatory effects and antioxidant properties, the resveratrol is believed to maintain organ function following trauma-hemorrhage.

Key words: resveratrol, anti-inflammatory, trauma-hemorrhage.