

SHC 45 . PROTECTIVE EFFECTS OF CARVACROL ON MORTALITY AND VASCULAR INJURY IN SEPSIS

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Carvacrol (CRV) is a botanical agent that has antioxidant, anti-inflammatory, antimicrobial, antibacterial, antiapoptotic, anti-platelet, antiproliferative and anti-carcinogenic properties. In sepsis process massively and uncontrolled inflammation, oxidative injury, coagulative necrosis and hypoperfusion are responsible for vascular dysfunction and death. We hypothesized that CRV may be protective from vascular injury and high mortality in sepsis.

57 Wistar albino rats were divided into four groups; sham (SHM), cecal ligation and puncture (septic rats, CLP), SHM+CLP (SHMCRV), CLP+CRV (CLPCR). For 7 days rats were given with CRV (80 mg/kg/day, o.g.) in SHMCRV and CLPCR groups or vehicle in SHM and CLP groups. At 8th day animals were underwent CLP and SHM operations. In 26 rats 20 hours after the operations mesenteric arterial blood flow (MBF) and phenylephrine responses of isolated aortic rings were measured. In 29 rats survival study was performed.

Phenylephrine responses of isolated aortic contractions and MBF decreased in CLP groups that were prevented by CRV pretreatment. Survival rate decreased in CLP group ($p<0,001$) that was partially restored by CRV.

CoQ10 has preventive effects on sepsis mortality, vascular dysfunction and tissue injury possibly due to its antioxidant, anti-inflammatory, antimicrobial, antiapoptotic, anti-platelet properties.

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