Effect of apocynin and ulinastatin on oxidative stress mediated apoptosis due to ventilator-related lung injury

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[Foundation Project]: It is supported by National Natural Science Fund(H0910).

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Received: 2014-11-26 Revised: 2014-12-09

JHMC, 2015;21(3):296-298

View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To explore effect of apocynin and ulinastatin on oxidative stress mediated apoptosis due to ventilator-related lung injury. Methods: A total of 40 SD rats were divided into 4 groups: control, model, apocynin and ulinastatin group. The content of TNFα and GSH-Px were detected in each group. The expression of oxidative stress parameters and apoptosis related proteins were assayed by western blotting. Results: The content of TNF-α was increased significantly while GSH-Px was decreased significantly in model group when compared with control (P<0.01). The expression of p22phox, p47phox, Bax and Caspase3/9 were enhanced while Bcl2 was decreased significantly when compared with control (P<0.01). Apocynin and ulinastatin normalized the aforementioned parameters significantly. Conclusions: Apocynin and ulinastatin can alleviate ventricular lung injury by inhibiting activated oxidative stress and apoptosis in lung.

[KEY WORDS] Oxidative stress; Apoptosis; Ventilator lung injury; Ulinastatin