

Resveratrol은 근위세뇨관세포에서 cyclosporine에 의한 세포사멸을 감소시킨다

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Resveratrol Attenuates Cyclosporine-induced Apoptosis in Renal Proximal Tubule Cells

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Cyclosporine nephrotoxicity is an important problem in transplant recipients. We performed this study to evaluate the effect of resveratrol on cyclosporine-induced apoptosis in renal proximal tubule cells. We investigated the effects of resveratrol on human proximal tubular epithelial cells (HK-2). In vitro, HK-2 cells were exposed to media (control), media+cyclosporine (2.0 ug/mL), media+cyclosporine+resveratrol (200 umol/L), and media+resveratrol. Preliminary experiments evaluating a dosage of resveratrol on apoptosis showed a maximum response at concentration of 200 umol/L. Protein expression of apoptosis markers were evaluated by western blot assay. Cyclosporine decreased the phosphorylation of cAMP response element-binding protein (CREB). Cotreatment with resveratrol increased the phosphorylation of CREB. Cyclosporine resulted in an increase of the expression of apoptotic marker such as Bax and associated with a decrease in the expression of anti-apoptotic marker such as Bcl-2. Co treatment with resveratrol showed a restoration of these changes. Our results suggest that resveratrol has a protective effect on cyclosporine induced apoptosis in renal proximal tubule cells.

Key Words: 레스베라트롤, 사이클로스포린, 세포사멸
Resveratrol, Cyclosporine, Apoptosis