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시호와 안지오텐신 수용체 차단제가 메산지움 세포에서 싸이토카인 생성에 미치는 영향

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Effects of Saiko and Angiotensin II Receptor Blocker (ARB) on Cytokine Production in Cultured Human Mesangial Cell

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Purpose : Angiotensinreceptor blocker (ARB) has been demonstrated to inhibit angiotensin II effects and improve glomerular hemodynamics and structures. Those of mechanims, suppression of glomerulonephritis-related cytokine production is important. Sairei-to is the most commonly used herbal medicine for the treatment of renal diseases and Saiko is the most important component of Sairei-to. However, there is no data about Saiko effect on cytokine production in mesangial cells.Thus to investigate the renoprotective effect of ARB, Sairei-to and combination of this two agents, we measured cytokine expression on cultured human mesangial cells.

Methods : Human mesangial cells were grown in DMEM supplemented 17% FBS, penicillin 100 U/mL, streptomycin 100 μg/mL, insulin 10 μg/mL. The cells were treated with either ARB 1 μmoL, Saiko 0.25%, 0.5% alone and in combination ARB 1 μmoL with Saiko 0.25%, 0.5%. Various cytokines (IL-1β, 2, 8, 11/ MCP-1, TNF-α) weremeasured by an ELISA method.

Results : In ARB alone treated group, the generation of IL-11, MCP-1, IL-8 significantly decreased. In Saiko 0.25%, 0.5% alone treated group significantly inhibited the generation of IL-11, MCP-1. In the combination therapy groups, the generation of IL-11, MCP-1 were also significantly decreased. ARB showed prominent inhibitory effect on cytokine production than Saiko and combination therapy.

Conclusion : The results suggest thatARB and Saiko reduce the generation of cytokines and, thus may be renoprotective.