P-50

복막중피세포에서 상피-중간엽 세포이행에 있어서 렙틴의 효과

영남대학병원 내과학교실 신장내과

김산옥, 강석휘, 석윤미, 조규향, 박종원, 윤경우, 도준영

Leptin-induced Epithelial-mesenchymal Transition in Human Peritoneal Mesothelial Cell

San Ok Kim, Seok Hui Kang, Yun Mi Suk, Kyu Hyang Cho
Jong Won Park, Kyung Woo Yoon, Jun Young Do

Division of Nephrology, Department of Internal Medicine, Yeungnam University Hospital

Epithelial-mesenchymal transition (EMT) is an important problem in the maintenance of peritoneal dialysis. Some studies have reported that higher levels of leptin is a cause of tumor progression and involved in EMT. We investigated the effects of leptin on human peritoneal mesothelial cells (HPMCs). In vitro, HPMCs were exposed to median (control), media+TGF-β, media+TGF-β+leptin (50 ng/mL), and media+TGF-β+leptin (100 ng/mL). Cell morphology was analyzed under an inverted phase-contrast microscope. Protein expression of EMT markers such as α-SMA and E-cadherin were evaluated by western blot assay. The cobblestone-like appearance of mesothelial cells were converted to a fibroblast-like morphology after treatment with TGF-β and/or leptin. E-cadherin expression was significantly decreased in HPMCs exposed to TGF-β. E-cadherin expression in HPMCs treated with TGF-β and leptin was lower than in those exposed to only TGF-β. The trend for α-SMA expression was reverse to that in the E-cadherin. This study demonstrated that leptin-induced EMT may be applicable to HPMCs.

Key Words: 렙틴, 상피-중간엽 세포이행, 중피세포
Leptin, Epithelial-mesenchymal transition, Mesothelial cell