

珪肺症におけるネフロネクチンの役割

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Role of Nephronectin in Pathophysiology of Silicosis

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Abstract Silicosis is a typical form of pneumoconiosis and is characterized as a type of lung fibrosis. Silica particles are captured and recognized upon by alveolar macrophages via the macrophage receptor with collagenous structure (MARCO) scavenger receptor, and thereafter the inflammasome is activated. Thereafter, various chemokines/cytokines play their roles to eventually form fibrosis. Additionally, silica particles chronically activate T helper cells which sets the background for the formation of silicosis-associated autoimmune disturbances. The occurrence and progression of lung fibrosis, the extracellular matrix-related molecules such as integrins and their ligands including fibronectin, vitronectin, laminin, and collagens, all play important roles. Here, the roles of these molecules in silicosis-related lung fibrosis are reviewed from the literature. Additionally, the measurement of serum nephronectin (Npnt), a new member of the integrin family of ligands, is discussed, together with investigations attempting to delineate the role of Npnt in silica-induced lung fibrosis. Serum Npnt was found to be higher in silicosis patients compared to healthy volunteers and seems to play a role in the progression of fibrosis with other cytokines. Therefore, serum Npnt levels may be employed as a suitable marker to monitor the progression of fibrosis in silicosis patients.

抄録 Npnt サンドイッチ ELISA 系を用いて、珪肺症患者血中の Npnt が健常人と比較して有意に高値であることを見出した。この結果から、Npnt は珪肺症患者の線維化をモニタできる有望なマーカー分子である可能性を見出すことができた。

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