Osteopontin: An Early Player in Neuroinflammation Disease

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Abstract

Osteopontin also known as bone sialoprotein (BSP). Osteopontin role as a linking protein. it is an extracellular structural protein and therefore an organic component of bone. Osteoprontin (OPN) binds to several integrin receptors containing α4β1, α9β1, and α9β4 expressed by leukocytes. These receptors have been well-stable to function in cell adhesion, migration, and survival in these cells. It has been shown that OPN drives IL-17 production. as we know it has important effect on neuroinflammation. Biomarkers qualified of predicting the clinical method and the level of disease progression in multiple sclerosis are currently unavailable. Our objective is to examine if the levels of proteins associated with axonal and neuronal degeneration T-cell-mediated autoimmunity (Osteopontin) are altered in the cerebrospinal fluid (CSF) of MS patients, and to assess their potential in reflecting the clinical severity and predicting the progression and clinical evolution of early MS.

Keywords: Osteopontin, Neuroinflammation, Bone sialoprotein, Cerebrospinal fluid

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