Poster Presentation

The Role of Depression in Prevention or Therapy of Neuroinflammatory Diseases

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Abstract

Depression alone is a severe and acute disease, but its close relationship with neuroinflammation and neurodegenerative diseases has emphasized its importance. In fact, the linking bridges between depression and these diseases are cytokines, especially pro-inflammatory cytokines which have fundamental roles in organizing different parts of central nervous system and emotions. Studying the relationships of depression and neuroinflammatory diseases shows two different aspects: either depression and cytokine disturbances lead to neuroinflammation and so brain diseases or depression appears as a result or contributor of neuroinflammatory diseases due to factors like stresses during the treatment, feeling of weakness and dependence on others or linked physiologic mechanisms of depression and neuroinflammation. These facts represent depression as an important factor in diagnosis, prevention or therapy of neuroinflammatory diseases. We review the role of Depression in neuroinflammatory diseases as a therapeutic strategy. According to mechanisms of inflammation-associated depression, which cytokines play a major role in progression of these disorders, new possibilities are opened for developing anti-inflammatory drugs or new anti-depressant compounds targeting neuroinflammation or its pathways. Also an effective strategy for detecting depression in the early stage can help us prevent neuroinflammation and subsequently neuroinflammatory disease.

Keywords: Depression, Neuroinflammation, Neurodegenerative, Cytokines

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P132