



The Possible Role Of Toll-Like Receptor 4 In The Pathology Of Stroke

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Stroke is a prevalent and dangerous health problem, which triggers an intense inflammatory response to Toll-like receptors (TLRs) activation. TLRs are the essential components of innate immunity system response, and therefore, they are one of the key factors involved in recognizing pathogens and internal ligands. Among TLRs, TLR4 significantly participates in the induction of inflammation and brain functions, hence, it has been hypothesized that this molecule is associated with several brain immune-related diseases such as stroke. It has also been proved that animals with TLR4 deficiency have higher protection against ischemia and the absence of TLR4 reduces the neuroinflammation and injuries associated with brain trauma. TLR4 deficiency may play a neuroprotective role in the occurrence of stroke. This article will review recent information regarding the impact of TLR4 in the pathogenicity of stroke.

Key words: TLR4, Stroke, Inflammation



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