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Poster Presentation

Non-Steroidal Anti-Inflammatory Drugs as a Prevention of Alzheimer Disease: Risks and Benefits

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Abstract

Alzheimer's disease (AD) is a chronic neurodegenerative disease that accounts for 60 to 80 percent of all dementia cases. The exact cause of Alzheimer`s disease is still unknown, but recent studies suggest neuro-inflammation as an important part of the pathogenesis of the disease. This brings in mind using non-steroidal anti-inflammatory drugs (NSAID) as treatment or prevention of the disease. In this review, we weigh up some pros and cons of NSAIDs as Alzheimer`s prevention. Although we know that most of the trials show effectiveness of long-term NSAID use in prevention of Alzheimer's disease, we cannot ignore disadvantages of using them. For example, it is proved that many inflammatory proteins and cytokines have useful and protective functions so we cannot simply suppress them by anti-inflammatory drugs because it may be more harmful than beneficial. Even some studies show increased risk of Alzheimer's disease in heavy NSAID users. Another major disadvantage of NSAIDs is their side effects such as gastrointestinal and nephrologic complications. Using NSAIDs as prevention of Alzheimer`s has been matter of much debate in recent years. We know that still there is no rational explanation for NSAIDs benefit in Alzheimer`s disease, while their harms are quite obvious. Based on these facts, NSAIDs are not yet a recommended medication for the treatment or prevention of Alzheimer`s disease.

Keywords: Alzheimer`s disease, Non-steroidal anti-inflammatory drugs, Neuroinflammation

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