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Relationship between NSAIDs(nonsteroidal anti_inflammatory drugs) and depression. does celecoxib have a better effect?

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Background and Aim : Depression is one of the most common psychiatric diseases. Over the last few years, inflammatory mechanisms of depression have been noticed. Inflammation and depression have a relationship to each other, therefore many articles focus on the potential of antidepressants affecting NSAIDs (nonsteroidal anti_inflammatory drugs).

Methods : We tried to elucidate this effect by performing this review article. We searched on PubMed and Google Scholar by using the keywords inflammation / NSAIDs / depression/ibuprofen/indomethacin / Aspirin / ASA / mefenamic acid/piroxicam. 119 studies were initially found. Of these, 33 articles were chosen by title/abstract screening and full-text screening.

Results : The common type of NSAIDs has been studied in this article. The analysis could be speculated that NSAID treatments improve depression symptoms. Among nonselective COX inhibitors, we mentioned these drugs: at first Aspirin. Many factors are involved in the effect of aspirin on depression such as age, stage of depression, the severity of depression, level of inflammatory factors, and dose of prescribed aspirin. Different results of the effect of aspirin have been reported in the articles, which need to be further investigated in different populations. Mefenamic acid can make good effects on depression and chronic stress. Mefenamic acid plays a role in inhibiting microglia activation. Piroxicam has been reported to be convertible to Central Nervous System (CNS) acting agents but It has serious depressant effects at high doses. Depression is considered one of the side effects of indomethacin, but the research done is mostly on animal samples and needs more investigation. Ibuprofen can be effective but most of the articles were