

Anti-inflammatory agents may effectively, safely curb major depressive symptoms, study finds

ACP Internist Weekly Staff

Anti-inflammatory agents can safely and effectively curb the symptoms of major depression, a meta-analysis found.

Researchers conducted a pooled analysis of 30 randomized, controlled trials totaling 1,610 people [to see if anti-inflammatory agents work better than placebo alone or as add-on therapy to standard antidepressant treatment](#). Anti-inflammatory agents included NSAIDs, omega-3 fatty acids, cytokine inhibitors, statins, steroids, minocycline, modafinil, and N-acetylcysteine. Results were published Oct. 28 by the *Journal of Neurology, Neurosurgery & Psychiatry*.

Overall analysis pooling from 26 of the trials suggested that anti-inflammatory agents reduced depressive symptoms (standard mean difference [SMD], -0.55 ; 95% CI, -0.75 to -0.35) compared with placebo. Higher response (risk ratio [RR], 1.52; 95% CI, 1.30 to 1.79) and remission rates (RR, 1.79; 95% CI, 1.29 to 2.49) were seen in patients receiving anti-inflammatory agents than in those receiving placebo.

Subgroup analysis of patients treated with NSAIDs, omega-3 fatty acids, statins, and minocycline showed significant antidepressant effects for major depressive disorder. Effects were even greater when one of these agents was added to standard antidepressant treatment.

Anti-inflammatory agents didn't seem to improve quality of life, although this might have been because of the small number of studies, the authors wrote. There were no major side effects, although there were some gastrointestinal symptoms among patients taking statins and N-acetylcysteine. Trials lasted only four to 12 weeks, so it wasn't possible to track side effects over the longer term.

The researchers also pointed out that not all studies tracked changes in depression scores over the entire study period. The depression scales used in the studies differed, and studies involving statins and minocycline included only small numbers of patients.

Still, anti-inflammatory agents may have an antidepressant effect and were generally safe, the authors wrote. "Anti-inflammatory agents show promising effects for [major depressive disorder]. However, owing to the chronic course of [major depressive disorder], quality of life and adverse effects should be further investigated in high-quality randomised clinical trials with long-term follow-up," they concluded.