Antibiotic Exposure and Juvenile Idiopathic Arthritis: A Case-Control Study

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Abstract

Mounting data suggest that there is a reliable association between inflammatory markers and depression. This association has led to the speculation that anti-inflammatory drugs may have antidepressant activities. Although an increasing number of studies have addressed this issue, there are several considerations that have confounded attempts to interpret the extant literature in this area. These include: (1) the use of anti-inflammatory drugs with potential antidepressant effects unrelated to inflammation, (2) the evaluation of antidepressant effects of anti-inflammatory drugs in patient populations whose underlying inflammatory disorder may directly benefit from anti-inflammatory treatment (unrelated to mood), (3) potential cultural biases of available studies, and (4) a nonlinear relationship between inflammation and depression that may contribute to a differential response in anti-inflammatory-treated versus placebo-treated patients depending on inflammatory status. Taken together, these data indicate that anti-inflammatory agents do not likely exhibit generalized antidepressant effects and may only be effective in subgroups of patients with increased inflammation. Moreover, the data raise the larger question of whether any antidepressant agent is truly an antidepressant, or whether all medications are only antidepressants for select populations of patients with more biologically discreet disease states we have yet to identify or name.