Are inflammation and cognition related in major depression? Inadvertent selection for a cognitively unimpaired subgroup

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Deficits in cognition are frequent in major depression and may contribute to the decrements in functioning that are associated with depression ¹. The pathophysiological status of this symptom dimension in depression remains unclear. It is possible that cognitive deficit may be a trait, or state related dimension, or even a ‘scar’ resulting from untreated or chronic depression³. A recent study suggested that remitted first episode patients performed worse than those with remitted recurrent depression⁴. While a meta-analysis showed cognitive deficits to be present as of the first episode⁵. However, another study showed better functioning in patients with a first episode of major depression⁶. During the course of two studies seeking to examine the relationship between cognitive function and inflammatory factors, we recruited subjects with a major depressive episode with onset occurring within the last 12 months. Further, inflammatory illnesses, unstable medical conditions, or any condition requiring the use of medication with anti-inflammatory effects were exclusionary criteria. We will present the cognitive profile of this sample, as well as response to unblinded treatment with antidepressants. The majority of the sample was free of cognitive deficits and response rates were unexpectedly high. We speculate that the selection criteria may have characterised a subpopulation of individuals with major depression who are as yet ‘unscarred’ by the pathological process.

3. Allott K et al., Characterizing neurocognitive impairment in young people with major depression: state, trait, or scar? Brain Behav. 2016 Jul 21;6(10): e00527.