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Tryptophan breakdown and cognition in bipolar disorder

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Highlights

- Cognitive deficits contribute to the large burden of illness associated with bipolar disorder.
- Chronic immune-mediated inflammation in the central nervous system results in alterations in neural structures that subserve cognitive function.
- Various tryptophan metabolites exhibit different properties and an imbalance towards neurotoxic TRYCATs may be involved in the development of structural abnormalities.
- In males with a higher 3-hydroxykynurenine/kynureninc acid ratio was significantly associated with poorer short- and long-term verbal memory performance.
- The correction of these inflammatory alterations may have pro-cognitive effects and therefore may constitute a potential therapeutic target.

Abstract