S22-03

CYTOKINES AND TRYPTOPHAN METABOLITES IN PERIPHERAL BLOOD CELLS OF PATIENTS WITH MOOD DISORDERS: ROLE OF ANTIDEPRESSANTS

A.M. Myint, M. Schwarz
Ludwig Maximilians University, Munich, Germany

Background: Mild immune activation is well documented in major depressive disorders. The imbalance in kynurenines in the plasma of patients with MDD was also reported. However, how the blood cells of the patients would respond to external challenge and what would be the effects of different antidepressants is still needed to be explored.

Material and methods: Altogether 20 patients and 40 age and gender matched healthy controls are recruited. Interviews were performed with HAM-D17 and early morning blood was withdrawn. Serum was separated and whole blood culture and peripheral blood mononuclear cell culture were performed with and without stimulation with lipopolysaccharide (LPS) or PolyI:C to activate TLR-4 and TLR-3 respectively. The cytokines and kynurenines are measured in supernatants and serum.

Results: The LPS showed clear immune activation whereas PolyI:C showed various responses. The selective serotonin reuptake inhibitor showed advantage in controlling immune activation induced by TLR-4 stimulation. The tryptophan breakdown showed higher in depressed patients.

Discussion: The immune activation is enhanced in depressed patients and SSRIs showed advantage in controlling immune activation. The details interaction between TLRs and antidepressants in depression will be discussed.

https://doi.org/10.1016/S0924-9338(11)73795-6 Published online by Cambridge University Press