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SERUM S100B PROTEIN LEVELS IN FIRST-EPISODE PSYCHOSIS

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Introduction
S100B is a calcium-binding protein produced by the astrocytes that has been used as a biomarker of brain inflammation. S100B has been involved in the schizophrenia pathophysiology, being considered a marker of state and prognosis.

Objectives
Studying the relationship between serum S100B levels and psychopathology in first-episode psychosis (FEP).

Methods
At admission and discharge, serum S100B levels were measured in 20 never-medicated FEP in-patients and 20 healthy controls. Psychopathology was assessed with the PANSS (Positive and Negative Syndrome Scale). The total, positive, negative and general psychopathology scores were assessed. Results are presented as mean±sd. and S100B levels in pg./ml.

Results
At admission, patients had significantly higher serum S100B concentrations than healthy subjects (39.2±6.4 vs. 33.3±0.98, p<0.02). S100B levels increased from admission to discharge (39.2±6.4 vs. 40.0±6.8, p=0.285) but they do not reach statistical significance. There were no correlations between PANSS (total, positive, negative and general) scores and S100B at admission and discharge. Individual item by item PANSS correlations with S100B elicited a positive correlation with P5 (grandiosity) (r=0.486, p=0.030) and G5 (mannerisms/posturing) (r=0.514; p=0.02) at discharge. There also was a positive trend with G7 (motor retardation) (r=0.409; p=0.073) at discharge.

Conclusions
FEP in-patients have significantly increased serum levels of S100B proteins, suggesting an activation of glial cells that may be associated with a neurodegenerative/inflammatory process. Apart from the study of total scale scores, the analysis of individual item is also recommended. The long-term treatment effect (one year or more) may be relevant to see their relationship to S100B levels.

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