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CORRESPONDENCE

Cerebrospinal Fluid Leucine Rich Alpha-2 Glycoprotein in Children with Tubercular Meningitis with their Diagnostic and Prognostic Significance: A Prospective Study: Correspondence

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To the Editor: The article by Prasad et al. published recently in IJP is compelling, but some points should be discussed [1].

We disagree with the proposal of the index study that leucine-rich alpha-2 glycoprotein-1 (LRG1) can serve as a biomarker of tuberculous meningitis [1]. LRG1 is an acute phase protein whose expression is upregulated by the mediators of the acute phase response. Therefore, LRG1 generally increases in microbial infections and cancer, but elevated levels have also been reported in other conditions. For example, LRG1 has been proposed as a predictive biomarker for chronic hydrocephalus after subarachnoid bleeding (SAB) [2]. In a study of 72 SAB patients, it was found that cerebrospinal fluid (CSF) LRG1 was not significantly increased in SAB patients compared to controls but increased with the severity of early brain injury and delayed brain ischemia after SAB [3]. Elevated CSF LRG1 has also been reported in patients with normal pressure hydrocephalus (NPH), which is why it was concluded that it may predict shunt effectiveness [4].

A limitation of the study is the size of the groups examined varied significantly. Since the control group only included 20 patients and the patient group included 90 individuals, it cannot be ruled out that statistical differences were due to the small variance in the control group.

A second limitation is that it is unclear why patients with febrile seizures were subjected to CSF examination. Did these patients show abnormalities on cerebral imaging with contrast medium?

In conclusion, CSF LRG1 is an acute phase protein that is elevated in all patients with cerebral inflammation, injury, or malignancy, and therefore cannot serve as a specific biomarker of tuberculous meningitis. Before concluding that CSF LRG1 could serve as an outcome predictor, prospective, multicentre studies in large cohorts of patients with different cerebral diseases are needed.

Declarations

Conflict of Interest None.

References

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