ABSTRACT

The aim of the study was evaluation of usefulness of cerebro spinal fluid (CSF) S100b & serum S100b protein concentration assessment in critically adult ill patients with meningitis admitted to critical care department, Shebin Elkom Fever Hospital , in comparison with cerebro vascular ischemic stroke (CVS) patients who admitted to critical care unit, Cairo University.

Material and methods: The study was performed on 40 patients of meningitis admitted to critical care department, Shebin Elkom Fever Hospital during the period from February 2015 to December 2015, in addition to 15 patients of ischemic stroke admitted to critical care department, Cairo University. In all patients S100b protein concentration was evaluated during the first 24 hours of hospitalization.

Results: Mean serum S100b protein concentration in patients of meningitis (group I) was 665.43 pmol/L compared to1044 pmol/L in patients of group II (Stroke group). The difference between mean serum concentration of this protein was statistically significant & p value (0.021).There was highly significant correlation between CSF S100b &serum S100b protein in meningitis group (group I) with p value (<0.001). There were higher levels of CSF S100b &serum S100b protein in septic meningitis patients than in aseptic meningitis patients but did not reach any statistical significance.

Conclusions: The obtained results conclude that S100b protein level was useful tool to predict the clinical outcome in critically ill patients of meningitis &ischemic cerebrovascular stroke.S100b protein was increased significantly with the severity of these diseases.

Key words: S100b protein, cerebro spinal fluid, meningitis, cerebro vascular stroke