

Serum cortisol level in patients with acute ischemic stroke

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Background: Activation of the hypothalamo-pituitary-adrenal axis has been shown in acute ischemic stroke. Some recent studies suggest that serum cortisol level may have prognostic value in patients with ischemic stroke. The aim of this study was to evaluate the serum cortisol level in patients with acute ischemic stroke.

Methods: In this prospective observational study, 51 patients with acute ischemic stroke were evaluated. Cardioembolic and lacunar strokes were excluded. In the first 24 hours of admission, serum cortisol level, National Institutes of Health Stroke Scale (NIHSS), diabetes and hypertension were assessed. The results were analyzed using descriptive statistics.

Results: In this study, 26 patients (51%) were female and the rest were male. Serum cortisol level was normal in 37 patients (72.5%). 14 patients died (27.5%) during the follow-up period. The mean serum cortisol level of dead patients were 33.48 ± 15.14 and for alive patients was 19.74 ± 35.10 . This difference was not statistically significant.

Conclusion: Ischemic stroke is associated with change in serum cortisol level. Prognostic value of this finding should be evaluated.