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Title	Incidence of adrenal insufficiency and its relation to mortality in patients with septic shock
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Category	Adrenal
Abstract	Background: The hypothalamic pituitary adrenal axis has pivotal role to combat acute insults. Glucocorticoids directly or indirectly play role in the maintenance of normal vascular tone and in potentiating the vasoconstrictor action of catecholamine, associated with septic shock. Aims: To determine the incidence of adrenal insufficiency and its relation to mortality in patients with septic shock. Settings and Design: A prospective observational study done at tertiary care center. Methods and Materials: In patients of septic shock, APACHE II score was calculated and serum cortisol was measured at the time of admission and 1 hour after giving 250 µg ACTH. Hydrocortisone was added to inotropics in all patients after drawing 2nd blood sample for serum cortisol and was continued till 7 days or less. In our study, the patients with inadequate adrenal response were divided into two groups: 1) absolute adrenal insufficiency – baseline cortisol < 20 µg/dL and increment ≤ 9 µg/dL after the ACTH stimulation test; 2) relative adrenal insufficiency – patients with baseline cortisol≥20 µg/dL and increment≤9 µg/dL. Statistical analysis used: Data were analyzed by SPSS version 17 and were presented in the values of mean, median, and percentages. The P value of < 0.05 was considered significant. Results: The incidence of AI in septic shock was 42% (absolute 14%, relative 28%). The mortality rate was 48%, and it was higher in patients with AI than in patients without AI (P = 0.017). The APACHE II score > 25 carried higher mortality rate than a score of < 25 (P =< 0.001). Baseline serum cortisol > 1210 nmol/L had exceptionally high likelihood of mortality (OR 50, P =< 0.001). Among those who survived, inotropic support was required for longer period in relative as compared to absolute AI and to non-AI. Conclusions: AI is prevalent among patients with septic shock. We found that higher APACHE scores were associated with higher rates of adrenal failure and mortality in patients with septic shock. There also appears to be a bimodal distribution of mortality with adrenal status in patients with septic shock.
Conflicts	NONE
Email	manish07gutch@gmail.com
Decision of Scientific committee	
State if accepted for oral	