

Predicting Mortality In Critically Ill Patients By Blood Glucose Levels (Registry Study)

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ABSTRACT :

Background: Hyperglycemia is common in critically ill patients during hospital admission, even in those who have not been diagnosed with diabetes mellitus

Objectives: Observe the outcome of critically ill patients in relation to blood glucose level at admission and to determine the optimal range of blood glucose at admission predicting lower hospital mortality among critically ill patients

Patient_and_method_: retrospective cohort study data collected from computer data base of critical care department Cairo university patients were divided into 4 group according to admission blood sugar group 1 glucose level <100mg\dl group 2 glucose level between 101 to 199 ,group 3 glucose level between 200 to 300 mg\dl ,group 4 glucose level > 300mg\dl, study population , two thousand two hundred eighty three critically ill patients admitted between January 2010 to December 2013

Intervention: no intervention

Results: male distribution 1231 patients(53.9%) > female distribution 1052(46.1%) mortality among whole study population were 19% 433 patient(246 patients 10.8%were non diabetic and 187 patients 8.2%were diabetic) ,the best outcome were among group 2 were glucose level between 101 to 199mg\dl carrying least mortality and comorbidity ,in logistic regression analysis the best predictor of mortality was APACHE II score

Conclusions: Extremes of blood glucose level even toward hypoglycemia (level < 100mg/dl) or hyperglycemia (level > 200mg/dl) carries a higher indicator of mortality.

Blood glucose level range between 100 to 200 mg/dl suggest the best outcome regarding mortality and co morbidity

Key words :

admission blood sugar

APACHE II score

retrospective study

diabetes

regression analysis

hypoglycemia