A STUDY OF PREDICTORS AND FACTORS AFFECTING OUTCOME IN DIABETIC KETOACIDOSIS PATIENTS

ABSTRACT

Introduction: Diabetes mellitus (DM) is a global health problem, with the prevalence of about 422 million in world population. Diabetic ketoacidosis (DKA) is one of the acute complications of diabetes mellitus that leads to 30% mortality in developing vs 2-5% mortality in developed countries. So, in this study we tried to find out poor prognostic markers of DKA and parameters that can be used as a screening tool to identify DKA prone population early.

Methodology: This is a prospective single centre study. The study included two groups. The first group consists of DKA patients, defined as those with hyperglycemia and ketosis, whose clinical and laboratory parameters were assessed at the time of admission and was followed up over the period of hospital stay. The primary outcome was discharge of patient from the hospital or death of the patient. The second group consists of known DM patients with no prior history of DKA followed up over a period of one month. The data collected were analysed using Chi square and student t test for categorical and continuous data, respectively. Odds Ratio and sensitivity and specificity were calculated for the predictors of DKA and outcome.
Results and Conclusion: A total of 30 patients were recruited in DKA group and 35 patients in DM without ketosis group. The results showed complicated precipitating factors, elevated renal parameters, and low Glasgow coma scores significantly produced worst outcomes. The study also showed higher glycated Hemoglobin (HbA1c) >10 %, lower serum albumin < 3.5g/dl, total protein<6g/dl and Body Mass Index (BMI <18.5) can be used as screening tools to predict DKA. Further studies should be done in large scale population to standardize these values.