

ABSTRACT

BACKGROUND AND OBJECTIVES:

Diabetes mellitus is a group of metabolic disorder characterised by chronic hyperglycemia associated with disturbance of carbohydrate, protein and fat metabolism. It causes long term damage and dysfunction to all the organs of the body especially kidneys, heart, eyes, nerves. Diabetes increases the frequency and severity of infections. Diabetes with sepsis contribute to around 22% of total sepsis cases. HbA1c reflect the average concentration of plasma glucose over previous 3 months. This study aims at whether HbA1c can be used as a prognostic factor in type 2 diabetes patients with sepsis. And to study the correlation of HbA1c with other factors like admission plasma glucose, CRP, APACHE II score, SOFA score, total leukocyte count and assessing the efficacy of HbA1c as a prognostic factor.

METHODS:

Patients admitted with diabetes and sepsis in the wards of department of medicine, Madras Medical College, Chennai during the period of April 2016 to September 2016 were taken up for study considering the inclusion and exclusion criteria.

RESULTS:

Out of 100 patients studied, 71 patients survived and 29 patients died. The majority of deaths were in patients aged above 60 yrs. Females have higher mortality rate than males. HbA1c is a good prognostic factor for assessing mortality in type 2 diabetes patients with sepsis.

INTERPRETATION AND CONCLUSION:

HbA1c, APACHE II score, SOFA score, CRP, total leukocyte count were found to have significant correlation with 30 days mortality and length of hospitalisation.

Admission plasma glucose has no correlation with mortality and length of stay in our study.

HbA1c has correlation with CRP, APACHE II score, SOFA score but not with admission plasma glucose levels.

HbA1c is as efficacious as both APACHE II score and SOFA score as a prognostic factor in diabetes patients with sepsis.