

Clinical Profile and Outcome of Type I Diabetes Mellitus at a Tertiary Care-Centre in Eastern Nepal

Authors : Gauri Shankar Shah

Abstract : Objectives: The Type I diabetes mellitus in children is frequently a missed diagnosis and children presents in emergency with diabetic ketoacidosis having significant morbidity and mortality. The present study was done to find out the clinical presentation and outcome at a tertiary-care centre. Methods: This was retrospective analysis of data of Type I diabetes mellitus reporting to our centre during last one year (2012-2013). Results: There were 12 patients (8 males) and the age group was 4-14 years (mean \pm 3.7). The presenting symptoms were fever, vomiting, altered sensorium and fast breathing in 8 (66.6%), 6 (50%), 4 (33.3%), and 4 (33.3%) cases, respectively. The classical triad of polyuria, polydipsia, and polyphagia were present only in two patients (33.2%). Seizures and epigastric pain were found in two cases each (33.2%). The four cases (33.3%) presented with diabetic ketoacidosis due to discontinuation of insulin doses, while 2 had hyperglycemia alone. The hemogram revealed mean hemoglobin of 12.1 ± 1.6 g/dL and total leukocyte count was $22,883.3 \pm 10,345.9$ per mm³, with polymorphs percentage of $73.1 \pm 9.0\%$. The mean blood sugar at presentation was 740 ± 277 mg/ dl (544-1240). HbA1c ranged between 7.1-8.8 with mean of $8.1 \pm 0.6\%$. The mean sodium, potassium, blood ph, pCO₂, pO₂ and bicarbonate were 140.8 ± 6.9 mEq/L, 4.4 ± 1.8 mEq/L, 7.0 ± 0.2 , 20.2 ± 10.8 mmHg, 112.6 ± 46.5 mmHg and 9.2 ± 8.8 mEq/L, respectively. All the patients were managed in pediatric intensive care unit as per our protocol, recovered and discharged on intermediate insulin given twice daily. Conclusions: Thus, it shows that these patients have uncontrolled hyperglycemia and often presents in emergency with ketoacidosis and deranged biochemical profile. The regular administration of insulin, frequent monitoring of blood sugar and health education are required to have better metabolic control and good quality of life.

Keywords : type I diabetes mellitus, hyperglycemia, outcome, glycemic control

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