

DIABETIC KETOACIDOSIS IN TYPE 1 DIABETIC CHILDREN AND ADOLESCENTS

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
وَقُلِ الْحَمْدُ لِلَّهِ سَيُرِيكُمْ آيَاتِهِ فَتَعْرِفُونَهَا وَمَا
رَبُّكَ بِغَافِلٍ عَمَّا تَعْمَلُونَ

صدق الله العظيم

سورة النمل (آية 93)

ABSTRACT

Diabetic ketoacidosis (DKA) is an acute, major, life-threatening complication of diabetes. In this study sixty- three patients were included; history, clinical examination, and laboratory investigations were performed. It was concluded from the study that infection, delayed diagnosis of type 1 diabetes and omission of insulin dose are the most important risk factors precipitating DKA. It was also concluded that, the current treatment protocols is efficient, safe and reliable.

Keywords:

- Diabetic ketoacidosis
- Type 1 diabetes mellitus

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List of Abbreviations

AaO₂	: Alveolar-to-arteriolar oxygen.
ACE	: Angiotensin converting enzyme.
ADA	: American Diabetes Association.
BE	: Brain edema.
BUN	: Blood urea nitrogen.
CNS	: Central nervous system.
CPT	: Carnitine palmitoyl-transferase.
CRP	: C-reactive protein.
CSII	: Continuous subcutaneous insulin infusion.
CT	: Computerized tomography.
CXR	: Chest X-ray.
DCL	: Disturbed conscious level.
DKA	: Diabetic ketoacidosis.
DM	: Diabetes mellitus.
ECG	: Electrocardiogram.
F-6-P	: Fructose-6-phosphate.
FFA	: Free fatty acid.
Fig.	: Figure.
G-6-P	: Glucose-6-phosphate.
HHNS	: Hyperglycemic hyperosmolar nonketotic syndrome.

HK	: Hexokinase.
HMP	: Hexose monophosphate.
ICU	: Intensive care unit.
K	: Potassium.
MRI	: Magnetic resonance imaging.
MSU	: Mid-stream urine.
Na	: Sodium.
PC	: Pyruvate carboxylase.
PEP	: Phosphoenolpyruvate.
PEPCK	: Phosphoenol pyruvate carboxykinase
PFK	: Phosphofructokinase.
PK	: Pyruvate kinase.
β-OHB	: Beta-hydroxybutyrate.
T2 DM	: Type 2 diabetes mellitus.
TCA	: Tricarboxylic acid.
TG	: Triglycerides.
WBC	: White Blood Cell.

Introduction and Aim of work