

tachycardic with HR of 106 bpm, and tachypnoeic with RR 28/min, requiring 5 L oxygen. There were coarse crepitations over the right lower and mid-lung field.

Her laboratory results showed TWBC of $6.5 \times 10^9/L$, hypokalaemia (3.0 mmol/l) and mild metabolic acidosis (pH 7.43, HCO_3^- 18.8 mmol/l). CXR revealed consolidation over the right lower zone. CTPA excluded pulmonary embolism. Her clinical condition deteriorated with serial blood gases in the ward showing worsening and persistent metabolic acidosis (pH 7.284, HCO_3^- 12.9 mmol/l, pCO_2 20.5, lactate 1.1 mmol/l) with an anion gap of 12. Her glucose readings were within the normal range, 5.3-5.9 mmol/L. We arrived at a diagnosis of euglycaemic DKA only when the urine ketone came back as ++ and blood ketone was 3.5 mmol/L. From here, IV Dextrose 10% boluses were given with 104 ml/hour maintenance over 24 hours. Concurrently, she was started on fixed-dose insulin infusion which was intensified accordingly. Ketoacidosis resolved and she was discharged well with SC levemir 8 units ON.

CONCLUSION

Our case highlights that it is imperative for the treating physician to have a high index of suspicion of this condition, so as to not delay lifesaving management.

EP_A015

COMPARISON DIABETIC KETOACIDOSIS (DKA) ADMISSION AMONG TYPE 2 DIABETIC MELLITUS (T2DM) PATIENTS DURING PRE RAMADAN AND RAMADAN: ASSOCIATED FACTORS, OUTCOME AND SEVERITY

<https://doi.org/10.15605/jafes.038.S2.33>

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INTRODUCTION

Risk for DKA was increased during Ramadan in patients with advanced micro- and macrovascular complications and renal insufficiency. Associated factors are non-compliance to insulin and infections. DKA admission in Ramadan leads to prolonged hospital stay and is associated with higher mortality.

METHODOLOGY

This is a retrospective study conducted in a tertiary hospital in Terengganu. All DKA admissions during Ramadan and 3 months pre-Ramadan from January 2015 to December 2019 were identified. Patients with T2DM who fasted during Ramadan were included in this study. Associated factors, outcomes (length of hospital stay and mortality) and severity of DKA in Ramadan and pre-Ramadan periods were compared. This study obtained ethical approval from 2 local ethical committees.

RESULT

There were 117 patients included in the study. The majority of admissions were males (54.2% pre-Ramadan, 61.8% Ramadan). The mean age was 47 years (pre-Ramadan) and 40 years (Ramadan). A majority had pre-existing T2DM pre-Ramadan (96.4%) and during Ramadan (97.1%), with most patients on insulin treatment: 66.3% and 94.1%, respectively. Mean HbA1c was 12.4% for pre-Ramadan and 12.0% for Ramadan. A majority had poor compliance with treatment at 83.1% and 100% in pre-Ramadan and Ramadan, respectively. Diabetes-related complications were present in 59% (pre-Ramadan) and 85.3% (Ramadan) of patients. Insulin treatment and diabetes-related complications were significantly associated with DKA during Ramadan (adjusted odd ratio [OR] 8.00, [2.16 – 52.48], p 0.007) (adjusted [OR] 3.97, [1.45 – 12.89], p 0.012), respectively. No significant difference was observed in length of stay (5 days vs. 4 days) and mortality rate (7.7% vs. 8.8%). The severity of DKA pre-Ramadan was similar (30.1% mild, 38.6% moderate, 31.3% severe). During Ramadan, the majority of patients were admitted as moderately severe (76.5%).

CONCLUSION

Insulin treatment and diabetes-related complications were associated with DKA admission in Ramadan. There was no observed difference in length of hospital stay and mortality between groups. Majority of patients presented with moderately severe DKA during Ramadan.