

study consisting of type 2 diabetes with cardiovascular disease outcome, type 2 diabetes without cardiovascular complications and healthy control group was conducted in 221 participants. We employed a machine learning algorithm to develop a cardiovascular risk prediction model.

RESULTS

A combination of sociodemographic, anthropometry and routine biochemical data was assessed using ensemble classifier as the base model for predicting cardiovascular risk (84.8% accuracy, 76.5% positive predictive value in high-risk). The predictive ability was improved when serum ferritin, vitamin D and NT-proBNP (89.4% accuracy, 83.3% positive predictive value in high-risk) were added to the model.

CONCLUSION

As cardiometabolic biomarkers may potentially improve cardiovascular prediction, further analysis can be performed to validate their clinical utility in diverse type 2 diabetes individuals.

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UNVEILING A RARE PRESENTATION: LARGE RENAL ABSCESS IN A TEENAGER WITH NEWLY DIAGNOSED DIABETES

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INTRODUCTION/BACKGROUND

Type 2 diabetes mellitus (T2D), once considered a predominantly adult-onset disease, has witnessed a concerning surge in prevalence among adolescents worldwide emerging as a significant public health challenge. Studies have suggested that young-onset T2D might represent with more severe and rapidly progressive disorder than adults. We illuminate the clinical journey of a teenage patient who presented with a renal abscess as a rare complication concurrent with the diagnosis of diabetes.

CASE

A 13-year-old Indian female, with no known medical illness, presented with fever and osmotic symptoms for 1 month. Otherwise, she had no other infective symptoms. Upon presentation, she was hemodynamically stable and systemic examinations were unremarkable. Her BMI

was 20 kg/m², with weight of 45 kg and height of 150 cm. She had acanthosis nigricans, capillary blood sugar of 13.2 mmol/L, serum ketone of 0.4 mmol/L, and no metabolic acidosis. Her investigations showed total white cells of 18.2x10³/uL, c-reactive protein 146.9 mg/L and HbA1c 13.1%. Because of persistent fever, an ultrasound of the abdomen was done which revealed a right upper pole renal nephronia (3.1 x 2.5 x 1.8 cm) and a large left lower pole renal abscess (5.4 x 8.5 x 10.1 cm). The renal abscess was removed with pigtail drainage and the abscess culture & sensitivity grew *Klebsiella pneumoniae*, sensitive to amoxicillin-clavulanate. After 6 weeks of adequate antibiotics and intensive insulin therapy, repeated imaging showed a resolved renal abscess. Her pancreatic auto-antibodies panel was positive for anti-Islet cell [42.9 IU/ml, (reference range <28)], and negative for anti-IA2 and anti-GAD. Distinguishing between the types of diabetes can be challenging in this age group. As she had clinical features of insulin resistance, high c-peptide level (1764 pmol/L) and parental history of T2D, she was diagnosed as young T2D with positive pancreatic autoantibody. During subsequent follow-up, her glycaemic treatment was de-intensified to basal insulin and metformin. In addition to dietary and lifestyle modification, her HbA1c improved to 6.0% with good glycaemic control.

CONCLUSION

There is an increasing prevalence of T2D in adolescents. However, renal abscess remains a rare presentation in teenagers with newly diagnosed diabetes. Successful management involved timely diagnosis, implementation of imaging, source control, adequate antibiotics and optimal glycaemic control.

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DIABETES CONTROL AMONG ELDERLY DIABETIC PATIENTS IN KUANTAN, MALAYSIA

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INTRODUCTION/BACKGROUND

The transformation of the aging population in Malaysia carries a significant healthcare burden in chronic diseases like Type 2 Diabetes Mellitus (T2D).