PP-D-45

MICROVASCULAR COMPLICATION PROFILE IN T2DM PATIENTS AT SURABAYA TERTIARY HOSPITAL

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INTRODUCTION
Chronic hyperglycemia in diabetes leads to organ dysfunction arising directly or indirectly. The chronic complications of diabetes are traditionally classified as macro- or microvascular, depending on the underlying pathophysiology. Retinopathy, nephropathy and neuropathy are microvascular complications of diabetes that may initially present subclinically. This study aims to examine the prevalence of diabetes-related microvascular disease.

METHODOLOGY
This was a cross-sectional observational study performed at the diabetes outpatient clinic of Dr. Soetomo General Hospital, carried out from July to December 2019. All participants underwent complete history taking and physical examination. Glycosylated hemoglobin (HbA1c) levels, glomerular filtration rate estimation (eGFR), and urinalysis parameters were collected from all subjects.

RESULTS
This study involved 100 T2DM patients consisting of 68 (40%) males and 100 (60%) females with an average age of 54.8 years. The average duration of diabetes is 6.65 years. The proportion of patients with HbA1c greater than seven was 68% (115 patients), and the rest had HbA1c of less than 7% (53 patients). Fifty-two patients (31%) had a normal eGFR, and 116 (69%) patients had an eGFR less than 60 ml/min/1.73m^2. Proteinuria was found in 125 (74%) patients, whereas the remaining 43 patients (26%) had no proteinuria. Eighty subjects (48%) had diabetic retinopathy, with a PDR proportion of 19% (32 subjects).

CONCLUSION
The prevalence of microvascular complications, namely diabetic kidney disease and diabetic retinopathy, is still frequent in this study. This study also shows that most patients have not achieved optimal glycemic control.

KEYWORDS
diabetic retinopathy, diabetic kidney disease, proteinuria, type 2 diabetes mellitus

PP-D-46

ANION GAP NORMALIZATION IN MEDICAL WARDS: AN ADOLESCENT CASE OF NEW-ONSET TYPE 1 DIABETES WITH SEVERE KETOACIDOSIS

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CASE
Most children with severe diabetic ketoacidosis without alterations in mental status can be managed safely in the medical unit (JPEM2022;36:174). A 15-year-old female was brought to the emergency department of a tertiary center in Beijing with a chief complaint of abdominal pain and vomiting for one day. Arterial blood gas showed pH 6.988, HCO3- 2.8mmol/L, BE -29.8, pCO2 12.0 mmHg, Na+ 131 mEq/L, glucose 666 mg/dL; Cr 0.72 mg/dL, HbA1c 15.6%, urine ketone >7.8 mmol/L. Abdominal CT/US imaging found no infection/malignancy. She was diagnosed with acute kidney injury and severe DKA. She was started on saline infusion (4L for the first 24 h; NEJM2018;378:2275), continuous venous insulin infusion and 5% glucose solution for 12 hours. Repeat ABG showed pH 7.346, HCO3- 16.4, Na+ 137. As soon as she was initiated on insulin glargine ten units, she was transferred to a medical ward in Tokyo. Further examinations revealed FPG 241 mg/dL, FCPR 0.29 ng/mL, α-GAD 64 0U/mL. She was diagnosed with type 1 diabetes and was discharged with a basal-bolus regimen with a total daily dose of 23 units. No neurological impairment observed. AG normalization time was approximately eight hours in PICU setting and was <12 h, in this case, in medical ward.

KEYWORDS
diabetic ketoacidosis, anion gap normalization time, neurologic outcome, adolescent type 1 diabetes