the gut microbiome and gut microbial dysbiosis has been linked to GDM, and metagenomic studies describing changes to microbiota in pregnant women.

Case Description: Body mass index (BMI) is implicated significantly in GDM. In women without GDM, the composition of the intestinal flora was unchanged and independent of BMI. Women with GDM in the higher BMI group showed a gut flora that was significantly different from those with GDM in the lower BMI group with an increased relative abundance of Bacteroidetes and lower abundance of Firmicutes. Gestational insulin resistance is mediated by the gut microbiome-indoleamine 2,3-dioxygenase ID01 −dependent axis and the gut microbiome changes during pregnancy, shifting ID01-dependent metabolism toward kynurenine production, intestinal inflammation, and gestational insulin resistance. This process can be reversed when ID01 is inhibited. The link between microbiota and diet management contributes to metabolic homeostasis in GDM and dietary management during pregnancy has an impact on the microbiota structure, short-term diet management in GDM processes is associated with the change in the Firmicutes/Bacteroidetes ratio. The opportunity for a screening approach for those who are at risk will be feasible near future as well as a treatment approach for gestational diabetes through modifying or changing the gut bacteria via diet intervention with its beneficial effects on the specific gut microbiota and supplementary probiotics may have utility in reducing the risk of GDM in a targeted approach to gut microbiome health

Discussion: Despite having more studies focusing on gut microbiota in women with GDM, data are inconsistent. Several confounding factors contribute to the disparities between the findings, including the study design, geographical locations, sample size, participant selection criteria, gestational age at the time of fecal sample collection, and sequencing methods. A prospective observational study is preferable to determine the causal relationships while most of the studies employed a cross-sectional study design and were performed in China and Finland, which may introduce data differences in terms of ethnicity and dietary habits. Sample size is an important factor as it may influence the significance of the results and crucial to adopt the findings clinically. A few studies had small sample sizes, and some had unequal numbers of subjects in the distribution between the groups with and without GDM. The participants were mostly above 35 years old and overweight. Several studies have observed women with GDM were older and had significantly higher BMI compared to women without GDM but only few studies have documented that they have adjusted these factors to eliminate possible confounders.

Abstract #1313472

Adherence of Physicians to Evidence-Based Management Guidelines for Treating Type 2 Diabetes and Atherosclerotic Cardiovascular Disease in Ajman, United Arab Emirates

Author Block: Mahir Jallo, MBChB, CABM (PhD), FRCP Edin, FRCP Glasg, FACE - Gulf Medical University & Thumbay University Hospital; Farah Alliabi, Clinical Pharmacist - Dubai Pharmacy College for Girls; Mirza Baig, Professor Clinical Pharmacy - Dubai Pharmacy College for Girls; Ammar Jaber, Professor, Clinical Pharmacy - Dubai Pharmacy College for Girls

Objective: Good adherence by physicians to treatment guidelines for T2DM could improve therapy outcome for patients. In this retrospective, cross-sectional study, we assessed physicians' adherence to evidence-based guidelines for T2DM management in adult patients (aged ≥18 years) with either confirmed atherosclerotic cardiovascular disease (ASCVD) or those at high risk of developing ASCVD at the Thumbay Hospital Ajman an Academic Health Center affiliated with Gulf Medical University - United Arab Emirates

Methods: Relevant data was obtained from patients' medical records, assessed, and compared based on the 2018 diabetes guidelines of the American Diabetes Association and European Association for the Study of Diabetes.

Results: A total of 218 patients (186 males and 32 females) were included in the analysis. Of these, 122 were prescribed either sodium-glucose co-transporter-2 (SGLT2) inhibitors or glucagon-like peptide 1 (GLP-1) receptor agonists and 34 were prescribed both. The overall adherence to the guidelines was 56%, which was significantly influenced by body mass index (BMI), hemoglobin A1c (HbA1c) levels, and estimated average glucose (eAG).

Discussion/Conclusion: Adherence to guidelines was significantly high when treating patients with elevated levels of HbA1c and eAG, physicians are more likely to prescribe SGLT2 inhibitors or/and GLP-1 receptor agonists to such patients. Physicians' adherence to guidelines was significantly correlated with patients' BMI and the levels of HbA1c and eAG. To the best of our knowledge, this is the first study conducted on diabetes and its risk factors in UAE.

Abstract #1314889

Oral Antidiabetic Medications Use in Patients with Uncontrolled T2DM who Refuse Insulin or Any Injectable Therapies

Author Block: Samih Odhaib, MD, MSc (Endocrinology) - Thi Qar Specialized Diabetes Endocrine and Metabolism Center, Thi Qar Health Directorate, Thi Qar, Iraq; Haider Alidrisi, MD, MSc (Endocrine), FACE - FDEMC; Abbas Mansour, MD, FRCP, FACE - FDEMC

Objective: There is no guideline to provide a management roadmap for individuals with poorly controlled T2DM who refused insulin using different combinations of OADs. The objective is to evaluate 4 different combinations of OADs in individuals with uncontrolled T2DM who refused any injectable therapies.

Methods: Prospective clinical trial for 312 individuals <65 years old, with poorly controlled T2DM and HbA1c ≥10%, with no diabetes-related complications or comorbidities who consulted Faiha Specialized Diabetes Endocrine and Metabolism Center and who refused any type of injectable medications (Sep 2018 and Sep 2019). They were assigned randomly to 4 treatment groups on a (1:1:1:1) basis with (n = 78) each. Group 1: sitagliptin 50 mg or saxagliptin 2.5 mg/metformin 1000 mg FDC twice and gliclazide MR 60 mg tablet. Group 2: pioglitazone 15 mg/metformin 1000 mg FDC twice and gliclazide MR 60 mg tablet. Group 3: drugs of group 1, plus dapagliflozin 10 mg. Group 4: drugs of group 2, plus dapagliflozin 10 mg. We scheduled the groups for 2 months' visits. HbA1c and biophysical profile were monitored every 4 months. During each visit, we advise them about insulin therapy. We used repeated measures statistics and Bonferroni correction.

Results: Groups were matched regarding gender, age (49.0 ± 6.7years), bodyweight (78.5 ± 13.7 kg), T2DM duration (7.8 ± 3.7 years), and HbA1c (13.6% ± 1.3%). During the first 6 months in all

groups, there were significant HbA1c reductions, with mean reductions of 3.8 ± 0.8, 3.4 ± 0.8, 3.3 ± 1.3, and 3.4 ± 1.1 for groups 1, 2, 3, and 4 respectively. The highest HbA1c reduction was in group 1 with no differences between the other groups. Analysis was done for those with completed 15 months. Similar findings were seen with further significant HbA1c reductions in all groups. The mean reductions in 12 months were 6.2 ± 0.8, 6.5 ± 1.2, 5.9 ± 0.9, and 5.3% ± 1.0% respectively. Through 15 months of treatment, in groups 2, 3, and 4 the bodyweights increased significantly, while it was not for group 1. The body weight in groups 2 and 3 was significant after 9 months with no significant further increase. While for group 4 it was significantly increased after 6 months and increased significantly further after 9 months, with no significant increase later. The means bodyweights increase was 0.7 ± 2.9, 3.2 ± 3.2, 2.2 ± 3.0, and 5.1 ± 5.5 kg for the groups, respectively.

Discussion/Conclusion: Use of FDC of DPP and gliclazide MR 60 mg provide the best HbA1c reduction and minimal bodyweight change. Still, this was at the expense of the duration of therapy and the hazards of diabetes complications during the study. Dapagliflozin did not provide additional benefit in HbA1c reduction in those patients.

Abstract #1315831

Evaluation of Characteristics of Diabetic Foot Ulcers in Individuals with Type 2 Diabetes Mellitus in Thi Qar-Iraq

Author Block: Adel Gassab Mohammed, MD, CABMS, MSc, Endocrinologist Assistant Professor - University of ThiQar, College of Medicine; Samih Abed Odhaib, MBCHB, FICMS, MSc - Faiha Specialized Diabetes, Endocrine and Metabolism Center (FDEMC), Basrah Health Directorate, College of Medicine, University of Basrah; Mahmood Thamer Altemimi, MBCHB, FICMS, MSc - Thi Qar Diabetic Center; Dheyaa Kadhim AlWaeli, MBCHB, FICMS, MSc - TDEMC

Objective: Study of the epidemiology of different foot ulcers in individuals with T2DM in Iraq is scarce. Our objective is to evaluate the general characteristics of diabetic foot ulcers in individuals with T2DM in Thi Qar, Iraq.

Methods: Cross-sectional observational study for individuals with T2DM with diabetic foot ulcers of different etiologies who attended Thi Qar Specialized Diabetes Endocrine and Metabolism Center (TDEMC), who attended the center for consultation between (January 2021 to June 2022). Assessment involved the biophysical profile, characteristics of diabetes status, comorbidities, investigations, and treatments of diabetes. Diabetic foot properties were discussed for site, Wagner's classification of diabetic foot ulcers, and the relationship to different clinical variables.

Results: We enrolled 881 individuals with T2DM with different types and etiopathologies of diabetic foot ulcers. The vast majority 96.8% (n = 853) of cases were due to T2DM, with males constituted 59% of the cohort (n = 520), and the mean age was 58 ± 11 years. Most of the cohort was overweight or obese with a mean BMI of 30.00 ± 5.82 kg/m^2. The mean duration of diabetes was 14.0 ± 7.0 years. Biochemical investigations included the mean serum creatinine 0.92 ± 0.35 mg/dL, blood urea 33.71 ± 14.7 mg/dL, estimated GFR 88.38 ± 19.45 mL/min/1.73m^2. The mean fasting and random plasma glucose were 168.3 ± 77.5 and 289.3 ± 110.1 mg/dL, respectively. More than 72.3% of the HbA1c levels of the enrolled

individuals were uncontrolled (n = 637), with a mean level of 10.26% ± 2.0%. The lipid profile included mean serum cholesterol 186.2 ± 54.26 mg/dL, and serum triglycerides 209.78 ± 114.46 mg/dL. The comorbidities include hypertension (n = 223), ischemic heart disease (n = 52), heart failure (n = 5), stroke (n = 18), diabetic neuropathy (n = 229), diabetic retinopathy (n = 167). About 40% of the cohort were already on insulin (n = 316), and about 70% of the cohort were on statins (n = 589). The diabetic foot ulcers characteristics include ulcers on right foot (48%, n = 424), left foot (46%, n = 403), both feet (6%, n = 54). The Wagner's classification of different diabetic foot ulcers of the enrolled individuals Wagner grade 1 (31%, n = 275), grade 2 (49%, n = 429), grade 3 (14%, n = 124), grade 4 (5%, n = 43), and grade 5 (1%, n = 10). The only significant relationships between Wagner's classification of the diabetic foot ulcers and biochemical and clinical variables were encountered for random plasma glucose and the presence of diabetic retinopathy only. Other variables did not have any statistical relationship to Wagner's classification, and these included (age groups, BMI, smoking status, family history of DM, duration of diabetes, fasting plasma glucose, HbA1c, lipid profile, estimated GFR, presence of hypertension, ischemic heart disease, and heart failure or stroke).

Discussion/Conclusion: Random plasma glucose and presence of diabetic retinopathy had significant statistical relationship to Wagner's classification of the diabetic foot ulcers. More variables are needed to be studied in patients with T2DM and diabetic foot ulcers.

Abstract #1316799

Hyperchloremic Metabolic Acidosis as a Result of a Prolonged DKA Management: A Case Report

Author Block: Abdulaziz Aljaman - King Saud Medical City; Ibtihal Abdulaal - King Saud Medical City

Introduction: DKA is an emergency condition which should be treated as soon as possible. NS is the fluid most commonly used to treat DKA, while it has high content of NaCl, a prolonged infusion can lead to multiple complications such as fluid overload with cerebral or pulmonary edema, and hyperchloremic metabolic acidosis. Here we are presenting a patient who came to ER with moderate DKA. DKA resolved next day, but due to the prolonged normal saline infusion he developed non anion gap acidosis, which was later resolved after discontinuing the fluid.

Case Description: A 46-year-old male, no PMH. Presented to the ER c/o abdominal pain, recurrent vomiting, and constipation for the last 2 days. Patient also complained of polyurea, polydipsia, and undocumented weight loss for the last 1 month. No medical or surgical history, also he is not on any regular medication. In ER, patient was conscious, oriented, vitally stable and systemic examinations were unremarkable. VBG showed high AG metabolic acidosis. Urine dipstick resulted in high in glucose and ketones. Normal CBC, normal Na and K, creatinine: 120 umol/L, urea: 10.9 mmol/L, HBA1C: 14.9. CT abdomen and pelvis was unremarkable. Patient admitted to the hospital as a case of moderate DKA, and the order was to keep the patient NPO and to start him on DKA protocol. In the next few hours, patient was clinically improved, no more vomiting, normal VBG and RBS, so the plan was to discontinue the insulin infusion, and to start oral intake and basal bolus insulin with continuation of normal saline at rate 125 mL/hr. In the next