

body weight (last observation carried forward [LOCF] analysis) at end of trial was +2.75 kg and +3.76 kg for IDegAsp BID and IDeg OD plus IAsp, respectively (ETD  $-1.04$ , 95% CI  $-1.99$ ;  $-0.10$ ,  $p < 0.05$ ).

Fewer confirmed hypoglycemia episodes (self-reported plasma glucose  $< 3.1$  mmol/L) were reported for IDegAsp BID vs IDeg OD plus IAsp (11.6 vs 13.6 events/patient-year of exposure [PYE] [Relative Rate (RR) 0.81, 95% CI 0.61; 1.07,  $p = \text{not significant (NS)}$ ]). Frequency of nocturnal confirmed hypoglycemia episodes (onset 00:01–05:59 h) was lower with IDegAsp BID vs IDeg OD plus IAsp (1.23 vs 1.55 events/PYE, RR 0.80, 95% CI 0.50; 1.29,  $p = \text{NS}$ ). Both regimens were well tolerated with similar adverse event rates.

**Conclusion:** HbA<sub>1c</sub> was reduced with IDegAsp BID and IDeg OD plus IAsp, with no significant difference between the regimens. The 95% CI for the HbA<sub>1c</sub> treatment difference did cross the pre-specified non-inferiority margin for the primary analysis (however, all pre-specified sensitivity analyses did achieve non-inferiority). IDegAsp BID was associated with significantly lower total daily insulin doses and less weight gain, with non-significant lower rates of confirmed and nocturnal confirmed hypoglycemia episodes compared with IDeg OD plus IAsp. Thus, IDegAsp BID offers the potential for a simple alternative to basal-bolus treatment in patients who require intensification of basal-insulin regimens, especially where adherence to more complex regimens may be challenging.

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#### PO344

##### HYPERURICEMIA IS INVERSELY CORRELATED WITH GLYCEMIC CONTROL IN TYPE 2 DIABETES MELLITUS

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**Background:** Diabetes is considered a major health problem with increasing prevalence, and leading cause of morbidity, mortality and vast complications. Cardiovascular disease is the most life-threatening consequences of diabetes mellitus with mortality rates up to two to four times higher for persons with diabetes mellitus. Landmark and historical research trials have shown a positive association between impaired glycemic control and the risk of coronary heart disease (CHD) and other diabetes complications such as nephropathy. Controlling hyperglycemia is important to reduce complications. For monitoring diabetes, A1C is now a standard methodology in diabetic clinics, which measures patient's glycemic control for the past 2–3 months. There are several diseases related to insulin resistance including type 2 diabetes mellitus (T2DM), prediabetes, metabolic syndrome,

hypertension, dyslipidemia, hyperuricemia, obesity and low testosterone. Hyperuricemia is closely linked to metabolic syndrome's component in type 2 diabetic subjects. Currently, uric acid is still not considered a potential biochemical marker and target while managing diabetes. Furthermore, exact association between serum uric acid levels and diabetes mellitus (hyperglycemia) is still not clear. Aim of this study was to investigate the relationship between hyperuricemia and glycemic control in T2DM.

**Method:** The study was a cross sectional analytical study which has enrolled T2DM patients who were on routine follow up in private out patients diabetic clinic. The study included type 2 diabetic patients. Patients with age  $< 30$  years and pregnant were excluded from the study. Patients with end stage renal disease or on dialysis and with active hepatic disease were again excluded from the study. Patients on diet control or only on oral hypoglycemic agents therapy were selected, and all those patients with insulin therapy were excluded from the study. Uric acid and A1C was measured. Statistical analysis was performed using Pearson correlation test.

**Result:** Enrolled patients were 126 subjects, 76 male (60.3%) and 50 female (39.7%); mean of age was  $49 \pm 18.4$  years. The laboratory results of uric acid level was  $6.3 \pm 3.2$  mg/dl. and A1C level was  $8.69 \pm 2.43$  %. Statistical test showed that uric acid significantly and inversely correlated with A1C ( $r = -0.266$ ;  $p = 0.004$ ).

**Conclusion:** There was significant inverse correlation between uric acid level and A1C in T2DM.

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#### PO345

##### ADIPONECTIN IS INVERSELY CORRELATED WITH LIPOPROTEIN(A) IN TYPE 2 DIABETES MELLITUS

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**Background:** Diabetes is considered a major health problem with increasing prevalence, and leading cause of morbidity, mortality and vast complications. Cardiovascular disease is the most life-threatening consequences of diabetes mellitus with mortality rates up to two to four times higher for persons with diabetes mellitus. Adiponectin has been identified as the “adipocytokines” that are derived from adipose tissue. Adiponectin plays a crucial role in insulin resistance and type 2 diabetes mellitus (T2DM) especially in obese people. Adiponectin has protective role in the initiation and progression of atherosclerosis through anti-inflammatory and anti-atherogenic effects. Many clinical studies have demonstrated that low plasma adiponectin level (hypoadiponectinaemia) associate closely with obesity-related diseases, including atherosclerotic cardiovascular diseases, T2DM, hypertension and dyslipidemia. Lipoprotein(a) is composed of a low-density lipoprotein particle and a glycoprotein molecule known as apolipoprotein(a) and is considered a pro-atherogenic, pro-thrombotic risk factor for coronary heart disease. Lipoprotein(a) have been reported to impact arterial endothelial function and have been proposed