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Vildagliptin Efficacy in Combination with Metformin for Early Treatment of T2DM (VERIFY): Baseline Characteristics of Enrolled Participants from Malaysia

Zin FM,[1] Khoo EM,[2] Kamaruddin NA,[3] Matthews DR,[4,5,6] Paldnius PM,[7] Proot P,[7] Foley JE,[8]* Stumvoll M,[9] Del Prato S[10]

[1]*Department of Family Medicine, School of Medical Sciences, Universiti Sains Malaysia*
[2]*Department of Primary Care Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia*
[3]*Endocrine and Diabetes Unit, Department of Medicine, Universiti Kebangsaan Malaysia Medical Centre (UKMMC), Kuala Lumpur*
[4]*Oxford Centre for Diabetes Endocrinology and Metabolism, UK*
[5]*National Institute for Health Research (NIHR), Oxford Biomedical Research Centre, UK*
[6]*Harris Manchester College, Oxford, UK*
[7]*Novartis Pharma AG, Basel, Switzerland*
[8]*Novartis Pharmaceutical Cooperation, East Hanover, NJ, USA*
[9]*Divisions of Endocrinology and Diabetes, University Hospital Leipzig, Germany,*
[10]*Department of Clinical and Experimental Medicine, Section of Metabolic Diseases and Diabetes, University of Pisa, Italy*
*employee at the time of manuscript preparation

INTRODUCTION
Durable glycaemic control can delay diabetic complications and lead to improved quality of life in people with type 2 diabetes mellitus (T2DM). The ongoing VERIFY trial is the first study that aimed to determine the durability of glycaemic control with an early combination of vildagliptin and metformin versus metformin monotherapy in drug-naïve people with T2DM. Here we report the baseline characteristics of the subjects enrolled in the ongoing VERIFY study in Malaysia.

METHODOLOGY
VERIFY is a 5-year, recently concluded, multi-national, multi-ethnic, randomised, double-blind, two-arm, parallel-group study conducted across 34 countries in 254 centres. We randomised 28 participants from multi-ethnic population in Malaysia (global, n=2001), age ranged between 18–70 years, having glycated haemoglobin (HbA1c) levels between 48– 58 mmol/mol (6.5–7.5%) and body mass index (BMI) 22–40 kg/m². Baseline measurements including HbA1c, fasting plasma glucose (FPG) and homeostasis model β-cell and insulin assessments were obtained at the screening visit, or at the next visit prior to initiation of metformin uptitration.

RESULTS
Among the patients randomized, there were 57.1% women; the median (±SD) disease duration was 1.1±3.22 months; mean (±SD) age was 49.9±10.04 years; weight 76.8±8.35 kg, and BMI 30.2±3.75 kg/m². A total of 7.1% of participants were smokers. Baseline HbA1c was 6.9±0.2% and FPG was 6.6±0.81 mmol/L. The global HOMA-%β and% sensitivity values were 84% (60, 116) and 46% (31, 68), respectively.

CONCLUSION
The population in this VERIFY study reflects the presence of insulin resistance with increased demand for insulin, and obesity. This study will provide information on opportunity for therapeutic intervention that focuses on durability of early glycaemic control.

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Hyperglycaemic Emergency Admission, Post-Discharge Care and 6-months Outcome in Hospital Bentong

Woh Wei M[1] and Chee Keong S[2]
[1]*Hospital Bentong, Pahang, Malaysia*
[2]*Hospital Sultan Haji Ahmad Shah, Pahang, Malaysia*

INTRODUCTION
Diabetic ketoacidosis (DKA) and hyperglycemic hyperosmolar state (HHS) are two acute complications of diabetes with increased morbidity and mortality if not treated appropriately. Outcome and follow-up care of patients after recovery and discharge for DKA/HHS is relatively under-reported and unknown. The aim of this study was to assess DKA and HHS admission and post-discharge care and outcome.

METHODOLOGY
This is a cross-sectional study including all patients with DKA and HHS admitted to Hospital Bentong from January 2017 to December 2018. Clinical records were reviewed for demographics, DKA/HHS characteristics, post-discharge care and diabetes control after 6 months.

RESULTS
44 patients with validated hyperglycemic emergency diagnosis were recorded during study period. 70.5% (n=31) for DKA and 29.5% (n=13) for HHS admission. Mean age of patients was 55.5 years old (SD 16) with predominantly females 55% (n=24). 90% (n=40) of patients had Type 2 diabetes mellitus. Two (4.5%) patients had diabetic emergency as first presentation of diabetes diagnosis. 6.8% (n=3) of the patients required ventilation

and ICU admission. Mean length of hospital stay was 5.8 (SD 3.7) days and mortality rate was 6.8%. Upon discharge, 38.6% (n=17) followed-up in nearby health clinics, 20.4% (n=9) in medical outpatient department (OPD), 15.9% (n=7) in general OPD, 13.6% (n=6) in other hospitals and 4.5% (n=2) with private GPs. 6.8% (n=3) of patients defaulted their follow-up in Hospital Bentong (MOPD and OPD) with unknown outcomes. Patients who had follow-up in Hospital Bentong, had 6.25% readmission rate within 6-months of discharge with no documented mortality. Mean HbA1c was 10.67% (SD 3.68). 62.5% (n=10) of patients had documented proteinuria. 75% (n=12) of patients were on insulin therapy with mean total daily dose of 49.5 (SD 9.7) units.

CONCLUSION
There are significant pitfalls in follow-up of patients after hyperglycaemic emergency admission, evidently with poor glycaemic control. A standardized follow-up protocol with comprehensive monitoring is needed for these patients with continuous emphasis on glycaemic targets to prevent diabetic complications.

PP-17

Prevalence of Non-Alcoholic Fatty Liver Disease in Patients with Type 2 Diabetes Mellitus

Elaine C,[1] Sue Wen L,[1] Fauzi Azizan AZ,[1] Athirah A,[1] Ahmad Hasif A,[1] Nur Adilah MN,[1] Shobhana S,[2] Jan C[2]
[1]*Department of Medicine, Hospital Tuanku Ampuan Najihah, Kuala Pilah*
[2]*Department of Radiology, Hospital Tuanku Ampuan Najihah, Kuala Pilah*

INTRODUCTION
The prevalence of NAFLD is increasing but has not been frequently studied in Malaysian population. NAFLD is associated with risks such as Type 2 Diabetes Mellitus (DM), obesity and dyslipidemia. We aim to study the prevalence of NAFLD amongst Type 2 DM patients and identify its correlation with Hba1c, Triglyceride, Low-Density Lipoprotein, High Density Lipoprotein levels and BMI.

METHODOLOGY
This is a cohort study reviewing patients with Type 2 DM who are under MOPD, HTAN follow-up from year 2012. Patients with Type 2 DM who met the inclusion criteria were selected and subjected to ultrasonography. Data analysis was done using chi square test.

RESULTS
A total of 525 patients were recruited, however there was a drop-out of 250 patients. 105 of 275 patients (38.2%) had NAFLD. In our study, we found that the prevalence of NAFLD was more in patients with higher BMI ($\geq$23 kg/m^2). 40.2% of patients with BMI $\geq$23 kg/m^2 had NAFLD versus 20.7% of patients with BMI <23 kg/m^2 (p=0.040). The prevalence of NAFLD was also more in patients with higher triglyceride levels (triglyceride $\geq$1.7 mmol/L); 46.8% of patients with triglyceride $\geq$1.7 mmol/L had NAFLD versus 32.3% of patients with triglyceride <1.7 mmol/L (p=0.015). This was also the same for persons with diabetes with HbA1C level of $\geq$6.5%. 41.0% of patients with HbA1c level $\geq$6.5% had NAFLD as compared to 26.4% of patients with HbA1c<6.5% (p=0.050).

CONCLUSION
The prevalence of NAFLD was higher in patients with higher BMI ($\geq$23kg/m^2), triglyceride levels ($\geq$1.7 mmol/L), and Hba1c levels ($\geq$6.5%). Therefore, it is vital to address these risk factors to reduce the prevalence of NAFLD in patients with type 2 DM.