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UNDERSTANDING DIABETES LITERACY IN SEREMBAN: PREDICTIVE FACTORS AND CLINICAL IMPLICATIONS

Wee Mee Cheng¹, Nadiah Aminah Azizan², Wan Farahiyah Wan Muhammad³, Aun Aun Chua³, Poh Shean Wong¹, Lit Sin Yong¹, Nor Afidah Karim¹, Noor Lita Adam¹

¹Endocrinology Unit, Department of Internal Medicine, Hospital Tuanku Ja'afar Seremban

²Klinik Kesihatan Seremban

³Clinical Research Centre, Hospital Tuanku Jaafar Seremban

INTRODUCTION

Diabetes literacy represents personal knowledge and competencies related to diabetes mellitus (DM) among people living with DM (PLWD). It is a crucial component for optimizing care and empowering effective self-management.

METHODOLOGY

A cross-sectional study was conducted at Hospital Tuanku Ja'afar Seremban (HTJS) and Klinik Kesihatan Seremban (KKS) using a validated simplified Diabetes Knowledge Test (DKT). DKT assessed understanding in six domains, namely, awareness, lifestyle modification, diet and monitoring, general knowledge, preventive screening, and insulin. A score of >75% was classified as adequate diabetes literacy. Significant predictive factors identified from univariate Pearson Chi Square were further analyzed using multivariate logistic regression.

RESULTS

A total of 250 PLWDs, with equal contribution from each centre, were recruited with a mean (SD) age of 50.3 (13.6) years, 58.4% female, and 43.2% Malays. A total of 21.2% demonstrated adequate diabetes literacy. The results demonstrated the highest proficiency in the preventive screening domain (92.6%) and the lowest in the awareness domain (50.2%). Unemployed PLWDs had significantly lower odds of adequate diabetes literacy (odds ratio [OR] = 0.20, $p = 0.010$). Similarly, PLWDs with hemoglobin A1c levels >10% exhibited approximately 2.6-fold lower odds of adequate diabetes literacy. In contrast, PLWDs who reported healthcare personnel as their primary source of diabetes-related information had significantly higher odds of adequate literacy (OR = 1.59, $p = 0.017$). No significant association was demonstrated between diabetes literacy and frequency of hospital admissions, medication adherence, and diabetes-related target organ damage.

CONCLUSION

Diabetes literacy among PLWD in HTJS and KKS is suboptimal, with notable gaps in awareness of the disease. Targeted, culturally tailored education strategies are essential to address these disparities and to empower them for effective diabetes self-management.

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ORAL ALPHA-LIPOIC ACID, VITAMIN B COMPLEX, AND VITAMIN E COMBINATION (BIONERV E+) FOR TREATING SYMPTOMATIC DISTAL SENSORY POLYNEUROPATHY: INTERIM ANALYSIS OF A RANDOMIZED, PLACEBO-CONTROLLED TRIAL

Fathimath Shazoo^{1,2}, Ilham Ismail², Rathika Rajah³, Wan Asyraf Wan Zaidi^{1,3}, Rabani Remli^{1,3}, Mahrnunissa Mahadi², Norlaila Mustafa^{1,2}, Roszita Ibrahim⁴, Norasyikin A. Wahab^{1,2}

¹Department of Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia

²Endocrine Unit, Department of Medicine, Hospital Canselor Tuanku Muhriz

³Neurology Unit, Department of Medicine, Hospital Canselor Tuanku Muhriz

⁴Department of Community Health, Faculty of Medicine

INTRODUCTION

Diabetic sensorimotor polyneuropathy (DSPN) is a common complication of long-standing diabetes mellitus marked by neuropathic pain and sensory deficits. Evidence supporting combination antioxidant and vitamin-based therapy remains limited, particularly in patients with chronic disease. This study aims to determine symptom improvement after 12 weeks of oral alpha-lipoic acid, vitamin B complex, and vitamin E (Bionerv E+) in chronic diabetic patients with symptomatic DSPN.

METHODOLOGY

This single-centre, randomized, double-blind, placebo-controlled trial at HCTM enrolled 31 patients with symptomatic DSPN, assigned to Bionerv E+ ($n = 16$) or placebo ($n = 15$) for 12 weeks. Symptoms were assessed at baseline and post intervention using the Neuropathy Impairment Score-Lower Limb (NIS LL), Short Form McGill Pain Questionnaire (SF MPQ), Toronto Clinical Scoring System (TCSS), and nerve conduction studies (NCS).

RESULTS

A total of 31 participants were recruited; 18 completed the study (11 intervention, 7 placebo). The cohort was predominantly elderly (median age 68 ± 12 years), male (51.6%), with long-standing diabetes (mean duration of 18.6 ± 8.2 years), and a mean hemoglobin A1c of $7.3 \pm 0.6\%$. A statistically significant reduction in TCSS score was observed in the intervention arm (5.5 ± 3.8 vs 3.3 ± 3.4 ; $p = 0.002$), indicating improvement in neuropathic symptom severity in this chronic population. The SF MPQ scores showed a downward trend in both arms, but were not statistically significant. Among intervention participants who completed sural NCS, three patients demonstrated normalization, and five showed partial amplitude gains, indicating directional improvement in nerve function. Four patients with normal baseline studies exhibited further amplitude gains. Otherwise, limited improvements were observed in those with abnormal conduction velocity parameters. Bionerv E+ was well tolerated, with only mild and self-limiting adverse events reported.

CONCLUSION

Short-term supplementation with Bionerv E+ showed improvement in neuropathic symptoms among long-standing diabetic patients. However, longer-term studies with larger cohorts are necessary to determine its effects on patients with DSPN.

EP_A032

EFFICACY AND SAFETY OF SGLT2 INHIBITORS IN ELDERLY (≥ 75 YEARS) WITH TYPE 2 DIABETES: A REAL-WORLD STUDY

Siew Wai Shuit¹, Shamharini Nagarathnam¹, Fei Bing Yong¹, Norisha Nandini Passkaren¹, Keen Tien Boey¹, Nur Syahirah Asarapoo¹, Sathya Rajagopal¹, Vikanesa Mahalingam¹, Zanariah Hussein¹

¹Endocrine Unit, Medical Department, Hospital Putrajaya

INTRODUCTION

Sodium-glucose-linked-transporter inhibitors (SGLT2-i) have demonstrated cardiovascular and renal benefits in type 2 diabetes mellitus (T2DM), but patients aged ≥ 75 years remain underrepresented in major trials, creating uncertainty regarding their risk-benefit profile. Real-world data show mixed safety signals. In Malaysia, local evidence is limited despite a growing elderly diabetic population. This study evaluates the glycemic efficacy and safety of SGLT2-i in advanced elderly patients in a real-world public hospital setting.

METHODOLOGY

We conducted a retrospective observational cohort study of patients aged ≥ 75 years with T2DM initiated on SGLT2-i in Hospital Putrajaya (2020–2024). Electronic records were reviewed for demographics, comorbidities, medications, and biochemical parameters. Outcomes at 6–12 months assessed glycemic control and safety. Adverse events and discontinuation rates were recorded. Patients with incomplete data, type 1 diabetes, active malignancy, or severe renal impairment were excluded.

RESULTS

A total of 104 patients (mean age 78.2 years; 54% female) were included with a high proportion (76.9%) classified as at high cardiovascular risk due to established macrovascular disease (57.7%) or nephropathy (53.8%). Indications for SGLT2-i initiation were glycemic control alone (69.2%) and together with cardiorenal protection (58.7%). Glycemic control remained stable (hemoglobin A1c: 7.66–7.45%; $p = 0.076$), with preserved renal function (estimated glomerular filtration rate: 58.65–58.11 mL/min/1.73 m²; $p = 0.575$). Overall safety was favorable, with 90.4% experiencing no adverse events. Minor adverse events included urinary tract infections (2.9%) and polyuria (1.9%). ASCVD-related hospitalizations occurred in 4.8% of patients, with a low discontinuation rate (7.7%). A statistically significant weight reduction was observed (baseline 66.67 kg, -1.01 kg; $p = 0.005$) but was not clinically significant. Proteinuria improvement was noted in 15.7% of patients.

CONCLUSION

SGLT2-i are safe and well-tolerated in elderly T2DM patients (≥ 75 years), with stable glycemic control, preserved renal function, and minimal adverse events, supporting their use in very elderly Asian populations.

EP_A033

EXTREME GLYCEMIC SEVERITY AND MORTALITY RISK IN THE TB-DM CO-PANDEMIC: A RETROSPECTIVE ANALYSIS OF CLINICAL OUTCOMES

Mohammad Ulilamri Tukiman¹, Chitra Devi Subramaniam¹, Yusniza Yusoff², Mohammad Nur Syafiq Mohamad Azman¹, Choo Jia Qing¹

¹Department of Internal Medicine, Hospital Sungai Buloh

²Endocrine Unit, Department of Internal Medicine, Hospital Sungai Buloh

INTRODUCTION

Tuberculosis patients with comorbid diabetes face a substantially higher risk of mortal outcomes. The “meta-inflammation” loop between hyperglycemia and tubercu-