93.3% accuracy with automated triage. When integrated, modelling suggests the framework could reduce major complications by approximately 20–30% and unnecessary referrals by up to 35%. The system runs automatically upon opening the patient record, requiring no extra clinician steps.

CONCLUSION

Synergizing AI with clinicians' expertise offers a scalable solution for Malaysian primary health clinics. A 12-month national pilot is recommended to generate real-world evidence and inform the National AI Action Plan 2026–2030.

EP_A027

PREVALENCE OF DIABETIC PERIPHERAL NEUROPATHY AND ITS ASSOCIATION WITH SERUM NEURON-SPECIFIC ENOLASE AMONG TYPE 2 DIABETES MELLITUS PATIENTS

Siti Kaamilah Mohd Zin[1,2], Fatimah Zaherah Mohamed Shah[2], Nor Amelia Mohd Fauzi[3], Rohana Abdul Ghani[2], Nur 'Aini Eddy Warman[2]

[1]*Hospital Tawau*

[2]*Endocrine Unit, Department of Internal Medicine, Hospital Al-Sultan Abdullah, Universiti Teknologi MARA*

[3]*Neurology Unit, Department of Internal Medicine, Hospital Al-Sultan Abdullah, Universiti Teknologi MARA*

INTRODUCTION

Diabetic peripheral neuropathy (DPN) is a common complication of type 2 diabetes mellitus (T2DM), with nerve conduction studies recognized as the diagnostic gold standard. Serum neuron-specific enolase (NSE) has been linked with DPN. This study aims to determine the prevalence of DPN among T2DM patients, evaluate clinical characteristics, and explore the relationship between NSE and DPN.

METHODOLOGY

A cross-sectional study was conducted at Universiti Teknologi MARA Specialist Centre Sungai Buloh and Hospital Al-Sultan Abdullah, involving patients aged 18–60 years, diagnosed with T2DM for more than 5 years (n = 132). All participants underwent anthropometric measurement, completed the Michigan Neuropathy Screening Instrument evaluation, and biochemical parameters, including lipid profile, hemoglobin A1c, and serum creatine and NSE. The diagnosis of DPN was made based on positive NCS findings. Logistic regression was used to identify factors associated with DPN.

RESULTS

The study population had a mean age of 60.16 ± 10.28 years and a mean duration of diabetes of 14.82 ± 6.66 years. The prevalence of DPN was 51.5% (n = 68). Serum NSE levels were significantly higher (p = 0.003) and independently associated with the presence of DPN (adjusted odds ratio [OR] 1.033, 95% confidence interval [CI] 1.009–1.058, p = 0.006). Participants with DPN were also more likely to be on insulin therapy (p = 0.040). In addition, retinopathy (adjusted OR 3.567, 95% CI 1.528–8.329, p = 0.013) and elevated Urine Albumin-to-Creatinine Ratio levels indicating albuminuria (adjusted OR 1.031, 95% CI 1.002–1.061, p = 0.037) were significantly associated with DPN.

CONCLUSION

More than half of the study population had DPN, which was significantly associated with both retinopathy and nephropathy, as well as with elevated serum NSE. This emphasizes the importance of early screening and highlights the role of NSE as a surrogate marker for neuropathy in diabetes.

EP_A028

RECURRENT DIABETIC KETOACIDOSIS: PREDICTORS AND CLINICAL OUTCOMES IN A 24-YEAR RETROSPECTIVE COHORT

Liang Wei Wong[1], Lisa Mohamed Nor[2], Raja Nurazni binti Raja Azwan[1], Adilah Zulaikha binti Abd Latib[1], Hidayatil Alimi bin Keya Nordin[1], Qin Zhi Lee[1], Kean Heng Lim[1], Jia Ling Low[1], Mohd Fyzal bin Bahrudin[1], Syaza binti Izhar Hisham[1], Jia Whey Jacelyn Ong[2], Chin Voon Tong[1]

[1]*Endocrine Unit, Medical Department, Hospital Putrajaya*

[2]*Clinical Research Centre, Hospital Putrajaya*

INTRODUCTION

Diabetic ketoacidosis (DKA) is a life-threatening complication associated with significant morbidity and healthcare burden. Despite advances in diabetes care, recurrent DKA remains common, often reflecting gaps in treatment adherence and patient education. Identifying predictors of recurrence is crucial for risk stratification and targeted intervention.

METHODOLOGY

We conducted a retrospective observational study of all adult DKA admissions to a tertiary centre between 2001 and 2025. Electronic medical records were reviewed for demographic data, biochemical parameters, precipitating factors, and clinical outcomes. DKA was defined using standard biochemical criteria. Recurrent DKA was defined as