



Recent Publications Demonstrate Utility of DPNCheck® for Identifying High-Risk Diabetes Patients

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WOBURN, Mass., June 28, 2023 (GLOBE NEWSWIRE) -- NeuroMetrix, Inc. (Nasdaq: NURO) noted the recent publication of two large studies that support the clinical utility of DPNCheck screening in people with diabetes.

[Ke and colleagues](#) developed and validated an algorithm to predict progression from mild non-proliferative diabetic retinopathy (DR) to vision-threatening DR in type 2 diabetes. The model was created by analyzing 440 patients with non-proliferative DR or vision-threatening DR. It was then prospectively validated in 120 patients with mild non-proliferative DR who were followed for a median of 42 months. The study identified kidney function, insulin production and DPNCheck abnormalities as the three independent predictors of progression to vision-threatening DR. Common diabetes assessments including age, disease duration, HbA1c, LDL, HDL and peripheral arterial disease were not predictive.

[Fukuda and colleagues](#) evaluated 323 patients with type 2 diabetes using a cross sectional design. Patients with DPNCheck determined diabetic peripheral neuropathy had significantly worse kidney function than those without, while there was no difference between patients with and without diabetic peripheral neuropathy according to traditional clinical criteria. The authors further analyzed the data and found that DPNCheck results were an independent predictor of kidney function despite adjusting for multiple clinical variables.

"People with diabetes and a positive DPNCheck test have a high probability of having peripheral neuropathy with its attendant complications that include foot ulcers and increased risk of falls. The two recently published studies demonstrate that these individuals are at further risk for kidney and advanced eye disease. These results emphasize the importance of accurately identifying peripheral neuropathy at an early stage when all three microvascular complications of diabetes are most responsive to therapeutic interventions," said Shai N. Gozani, M.D., Ph.D., CEO of NeuroMetrix. "It is also evident that traditional clinical screening for peripheral neuropathy is poorly correlated to the underlying pathophysiology of diabetes, which calls into question its utility for identifying high-risk patients."

About Diabetic Peripheral Neuropathy

Diabetic peripheral neuropathy (DPN) is the most common long-term complication of diabetes, affecting half of people with diabetes. The clinical and economic burden of DPN stems from its central role in the development of foot ulcers that can lead to lower extremity amputation. DPN also causes debilitating chronic nerve pain and altered proprioception that increases the risk of falling, particularly in the elderly. Overall, DPN is associated with a substantial reduction in quality of life and decreased activities of daily living.

About DPNCheck

DPNCheck is an automated, fast, accurate, and quantitative sural nerve conduction test used to evaluate peripheral neuropathies. It is designed to be used by clinicians at the point-of-care to detect peripheral neuropathies at an early stage when intervention is likely to be most effective, to stage the severity of nerve deterioration and to monitor disease progression and treatment benefits. For more information, visit dpncheck.com.

About NeuroMetrix

NeuroMetrix is an innovation-driven company with a mission to improve individual and population health through novel medical devices and technology solutions for neurological disorders and pain syndromes. The Company has three commercial products. Quell® is a prescription wearable neuromodulator that is the only FDA-authorized medical device to help reduce the symptoms of fibromyalgia. DPNCheck® is a diagnostic device that provides rapid, point-of-care detection of peripheral neuropathies. ADVANCE® is a legacy diagnostic device that provides automated, in-office nerve conduction studies for the evaluation of focal neuropathies. For more information, visit www.neurometrix.com.

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