

## T1D neuropathy declines as glycemic control improves

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ORLANDO – Rates of diabetic peripheral neuropathy (DPN) in U.S. patients with type 1 diabetes (T1D) may have dipped, possibly because of improving clinical care, a new study suggests.

Researchers also found evidence that nonglycemic factors may play important roles in the development of the condition.

There are differences between DPN in T1D and type 2 diabetes: Lifetime incidence in T1D is believed to be 45%, lower than in T2D. However, a 2016 report noted that, “whereas treating hyperglycemia in type 1 DM can significantly reduce the incidence of neuropathy by up to 60 to 70%, glucose control in type 2 DM has only a marginal 5 to 7% reduction in the development of neuropathy.” (F1000Research 2016, 5(F1000 Faculty Rev):738)

Still, DPN is believed to be very common in T1D. According to the new study, previous research has suggested that the DPN rate in this population could be as high as 35%.

For the new study, researchers examined self-reports of DPN from 5,058 patients across 62 sites via the T1D Exchange Registry. All patients were at least 18 years of age and had at least 5 years of T1D. Their mean age was 39 years, the duration of diabetes was 22 years, and their average hemoglobin A1c was 8.1. Over half (56%) were women, and most (88%) were white.

A preliminary analysis found that just 10% of the patients had signs of DPN, according to their self-reports. In part, the difference between this number and previous estimates of DPN prevalence may be because previous studies relied on symptoms, exams, and electrophysiologic testing, said study researcher Kara Mizokami-Stout, MD, of the University of Michigan, in an interview.

However, study researcher Rodica Pop-Busui, MD, PhD, noted in an interview that one

strength of the new study is that it’s “a broad sample of patients with type 1 diabetes as they are currently treated in clinical care across the United States.”

Versus those without DPN, those with the condition were more likely to be older (mean 52 vs. 37 years), female (61% vs. 55%), and had T1D for a longer period (mean 32 vs. 21 years). They were also poorer and had less education. (All P less than .001)

The DPN group also had slightly higher systolic blood pressure (mean 126 vs. 123), higher triglycerides (117 vs. 95) and more than double the rate of tobacco use (9% vs. 4%), all P less than .001.

Also, cardiovascular disease was more common (26% vs. 6%) even though this group used statins (64% vs. 31%) and ACE inhibitors/ARBs (45% vs. 23%) at much higher levels, all P less than .001.

Researchers also found that this with DPN had higher HbA1c even after controlling for various confounders (8.4% vs. 8.1%, P less than .01).

“We have the ability to prevent neuropathy, and we should do that to our advantage, targeting glycemic control as best as possible without increasing the risk of hypoglycemia,” Dr. Mizokami-Stout said. Targeting nonglycemic factors is also crucial, she said.

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SOURCE: Mizokami-Stout K, et al. ADA 2018, Abstract 62-OR.

Link:

<https://www.mdedge.com/internalmedicinews/article/168732/diabetes/t1d-neuropathy-declines-glycemic-control-improves?channel=205>