Journal of Clinical & Translational Endocrinology 23 (2021) 100252

Contents lists available at ScienceDirect

Journal of Clinical & Translational Endocrinology

journal homepage: www.elsevier.com/locate/jcte

Letters to the editor

Ipswich touch test – A simple yet reliable indicator of diabetic neuropathy

Diabetic Neuropathy, the most common form of neuropathy in developed countries, may be subclinical in up to 50% of the cases, hence resulting in considerably raised morbidity and mortality, and leading to immense economic burden [1]. This necessitates the need for standardized and careful annual clinical foot assessments to identify risk factors for ulceration or amputation in diabetic patients [2].

More than half the diabetic patients who participated in the National Health Survey in 2010, did not recall receiving any advice on foot care or remember having their feet examined by a healthcare provider [3]. The existing methods for foot assessment are: the 10-g monofilament, the vibration perception threshold, the Neuropathy Disability Score, and the recently introduced Ipswich Touch Test (IpTT) [2].

Among these, the most widely used screening test in primary care is the 10-g monofilament. Although it is easy to perform and abnormal results with this method show 7.7 times increase in ulceration risk; it still requires training, purchase cost, and recurring expenses due to device replacements caused by overuse and misplacement. On the contrary, there is a much simpler, quicker, more reliable, and easily taught procedure that can be conducted in both the bedside and clinical settings and requires no equipment: The Ipswich Touch Test (IpTT) [2–4].

To perform the IpTT, the examiner uses the tip of his index finger to elicit the sensation of light touch on the tips of the patient's first, third, and fifth toes of each foot for 1–2 s. Patients are instructed to keep their eyes closed and to verbally indicate when they have positively felt the touch. The results of the observations are then recorded on a foot diagram. Examiners need to ensure they do not push, prod, tap or poke as this may evoke a sensation other than light touch. The procedure requires no instruments, can be easily sterilized by handwashing, is always available at hand, and provides immediate results as to which patients are at risk [2–4].

When compared with the 10-g monofilament, the Ipswich Touch Test has a sensitivity and specificity of 76% and 90% respectively [3]. Initially the test was developed for inpatient and outpatient settings to allow healthcare professionals to distinguish at-risk diabetic patients [3,4]. However, due to its simplicity, the IpTT can also be performed at home by laymen family members, friends or care providers with near perfect concordance to the test carried out by healthcare professionals in clinical settings, displaying similar sensitivity and specificity to identify at-risk diabetic patients [3].

One of the limitations of the test is that it can only be used to detect at-risk feet i.e. patients with advanced neuropathies hence cannot reliably gauge early or painful neuropathies. Furthermore, the IpTT is highly subjective to the examiner's ability to elicit, as well as the patient's perception to feel, light touch, hence if the patient is unable to accurately respond to the touch or if the examiner lacks proper training the results can fail to accurately predict which diabetic patients are at risk [3].

Nevertheless, we believe it remains an excellent tool to screen for foot amputation and to educate patients, and their care providers. Since the training is quick and easy to grasp, we can easily train healthcare providers, care assistants, and nurses to improve test results. We can also incorporate the test in routine check-ups at diabetic clinics and instruct patient's relatives or caregivers to perform it routinely at home as well. Apart from enhanced detection of at-risk diabetic patients, the frequent practice of the test will lead to better doctor-patient engagement, further empowering the patient and improving their awareness. Considering IpTT requires no equipment, healthcare providers and patients with access to limited resources especially in developing countries will benefit immensely. By integrating the test in outpatient, inpatient, and at home settings, in both the developing countries as well as the developed nations, we can reduce the overall burden of this debilitating complication of diabetes.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

[1] Vinik A, Casellini C, Nevoret ML. Diabetic Neuropathies. In: Feingold K, Anawalt B, Boyce A, Al. E, eds. Endotext [Internet]. MDText.com, Inc.; 2000. Available from: https://www.ncbi.nlm.nih.gov/books/NBK279175/.

[2] Bowling FL, Abbott CA, Harris WE, Atanasov S, Malik RA, Boulton AJM. A pocket-sized disposable device for testing the integrity of sensation in the outpatient setting. Diabet Med. 2012;29(12):1550–2. https://doi.org/10.1111/j.1464-5491.2012.03730.x.

[3] Sharma S, Kerry C, Atkins H, Rayman G. The Ipswich Touch Test: a simple and novel method to screen patients with diabetes at home for increased risk of foot ulceration. Diabet Med 2014;31(9):1100–3. https://doi.org/10.1111/dme.2014.31.issue-910.1111/dme.12450.

[4] Rayman G, Vas PR, Baker N, et al. The Ipswich touch test. Diabetes Care 2011;34(7): 1517 LP–1518. doi:10.2337/dc11-0156.

Syeda Kanza Kazmi, Hira Iqbal Naviwala*, Momin Aziz
DOW Medical College, DOW University of Health Science, Pakistan

* Corresponding author.
E-mail address: arihnhiranw@hotmail.com (H. Iqbal Naviwala).

https://doi.org/10.1016/j.jcte.2021.100252
Received 4 February 2021; Received in revised form 4 February 2021; Accepted 7 February 2021