Reply to "Use DN4-T to rule out non-neuropathic pain"

Yen-Feng Wang[a,b,c], Chih-Chao Yang[d], Long-Sun Ro[e], Yu-Chuan Tsai[f], Kon-Ping Lin[a], Wei-Zen Sun[g], Wei-Tse Fang[h], Shuu-Jiun Wang[a,b,c,*]

[a]Department of Neurology, Neurological Institute, Taipei Veterans General Hospital, Taipei, Taiwan, ROC; [b]Faculty of Medicine, National Yang-Ming University School of Medicine, Taipei, Taiwan, ROC; [c]Brain Research Center, National Yang-Ming University, Taipei, Taiwan, ROC; [d]Department of Neurology, National Taiwan University Hospital, Taipei, Taiwan, ROC; [e]Department of Neurology, Chang Gung Memorial Hospital-Linkou Medical Center, Taoyuan, Taiwan, ROC; [f]Department of Anesthesiology, E-DA Hospital, Kaohsiung, Taiwan, ROC; [g]Department of Anesthesiology, Department of Anesthesiology, National Taiwan University Hospital, Taipei, Taiwan, ROC; [h]Pfizer Taiwan, Taipei, Taiwan, ROC

Dear Editor,

We are grateful for Lin et al's interest in our study,[1] as well as their valuable comments.[2] As pointed out, the distribution of the scores of the Taiwan version Douleur Neuropathique 4 (DN4-T) questionnaire was symmetric, which raised some concerns about the validity of our findings. In fact, it is not uncommon for the scores of many screening instruments to be normally distributed. Take the recently published ID Pain-T paper as an example.[3] The scores appeared to normally distributed in the neuropathic pain patient group. In fact, this could reflect the wide range of severity of neuropathic pain symptoms among these patients, that is, most patients had relatively higher scores than controls, and a minority of patients had particularly higher or lower scores. However, the distribution alone may not give enough information with regard to its clinical utility. In our study, the optimum cut-off score of 3 was determined by the receiver operating characteristic (ROC) curve coupled with c index, which is a widely accepted approach, and its predictive power and reliability were confirmed by an area under the ROC curve of 0.83 and a Cronbach's alpha coefficient of 0.7, respectively. We agree that a sensitivity of 0.77 and a specificity of 0.78 are far from perfect, although an optimum cut-off usually represents a compromise between sensitivity and specificity, which was well demonstrated by the ROC curve and c index. However, some of your point are well taken, language and culture backgrounds, as well as clinical needs, should be taken into consideration, and field testing will be needed to validate our findings.

REFERENCES

1. Wang YF, Yang CC, Ro LS, Tsai YC, Lin KP, Sun WZ, et al. Development and validation of a Taiwan version of the DN4-T questionnaire. *J Chin Med Assoc* 2019;**82**:623–7.
2. Lin SH, Wu CC, Hung CJ. Use DN4-T to rule out non-neuropathic pain. *J Chin Med Assoc* 2020;**83**:510.
3. Yang CC, Ro LS, Tsai YC, Lin KP, Sun WZ, Fang WT, et al. Development and validation of a Taiwan version of the ID pain questionnaire (ID pain-T). *J Chin Med Assoc* 2018;**81**:12–7.

**Address correspondence. Dr. Shuu-Jiun Wang, Department of Neurology, Neurological Institute, Taipei Veterans General Hospital, 201, Section 2, Shi-Pai Road, Taipei 112, Taiwan, ROC. E-mail address: sjwang@vghtpe.gov.tw (S.-J. Wang).*

Conflicts of interest: Shuu-Jiun Wang has served on the advisory boards and as a moderator of Pfizer, Taiwan, Allergan, and Eli Lilly Taiwan; has received fees/honoraria from local companies (Taiwan branches) of Pfizer, Eli Lilly, and Boehringer Ingelheim; and has received research grants from the Taiwan National Science Council, Taipei Veterans General Hospital, and Taiwan Headache Society. The other authors declare that they have no conflicts of interest related to the subject matter or materials discussed in this article.

Journal of Chinese Medical Association. (2020) 83: 511.

Received March 11, 2020; accepted March 11, 2020.

doi: 10.1097/JCMA.0000000000000303.

Copyright © 2020, the Chinese Medical Association. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)