Prevalence of diabetes sensory neuropathy by a questionnaire interview in a cohort of Taiwanese diabetes patients

C.H. Tseng¹, C.K. Chong², J.J. Sheu³, T.H. Wu¹, D. Wang⁴

¹Department of Internal Medicine, National Taiwan University Hospital, Taiwan

²Department of Rehabilitation, Chong's Physical Medicine and Rehabilitation Center, Taiwan

³Department of Neurology, Taipei Medical University Hospital, Taiwan

⁴Pfizer Innovative Health Medical, Pfizer Limited, Taiwan

A cohort of 1403 Taiwanese diabetes patients were screened for diabetes sensory neuropathy by questionnaire interview based on 3 categories of abnormal sensation, i.e., 1) numbness or tingling pain; 2) electric shock; and 3) skin thickness sensation. Seven sites on each upper limb (i.e., finger tips, finger, palm, dorsum of hand, wrist, lower arm and upper arm) and 6 sites on each lower limb (toe tips, toe, plantar surface of foot, dorsum of foot, lower leg and thigh) were recorded for the respective symptoms. At the beginning of the screening, the questionnaire did not discern the right and left sides (Cohort I, n=680), but at a later time, the questionnaire was revised to separate the right and left sides (Cohort II, n=723). Results showed that 47.9% of the patients in Cohort I and 59.6% in Cohort II had any one of the symptoms on any limb. Questionnaires with and without discerning the right and left sides were then combined together (i.e., combining Cohort I and Cohort II) and diabetes sensory neuropathy was defined by using different definitions. The prevalence of diabetes sensory neuropathy was 54.0% if it was defined as "any positive symptoms on one or more sites". It was 41.7% if the definition was "any positive symptom on at least one site involving the lower limb". In conclusions, Taiwanese diabetes patients may have a high prevalence of diabetes sensory neuropathy if a structured questionnaire is used for screening.