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359 Screening tests for peripheral neuropathy in cystic fibrosis-related diabetes

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Clinical practice guidelines recommend annual screening for neuropathy for all people with diabetes. Rapid and reliable sensory tests appropriate for the diagnosis of neuropathy in Type 1 (T1) and Type 2 diabetes – which have been shown to be predictors of foot complications – are established in routine diabetes practice. As yet the reliability of these tests in Cystic Fibrosis related diabetes (CFRD) is unknown. These sensory tests are not specific for diabetes neuropathy and may be affected by factors relevant to CF such as age, height and exposure to neurotoxic agents. The object of this study was to determine and explore any differences in the results of three simple sensory tests to establish validity when screening for neuropathy in patients with CFRD.

Research design and Methods: Three simple sensory tests were performed: the 10-g Semmes-Weisnstein monofilament examination (SMWE), superficial pain sensation (SP) and vibration perception threshold (VPT) in 4 groups each of 30 subjects: CF patients, CFRD patients, T1 patients, and normal controls.

Results: The groups were sex and age matched ($p = 0.26$) with matching of the diabetic groups for disease duration (T1 11.3 years, CFRD 10.1years). There was no significant difference between the groups for SMWE or VP. The control groups showed a tendency to higher values for SP when compared to CFRD patients ($p = 0.066$), however this was the least reproducible test. There were no differences between CF patients and controls for any of the tests

Conclusion: The lack of a significant difference between the CF group and controls in all three tests suggests that abnormalities detected on the tests would be likely due to specific pathological processes rather than an inherent feature of CF.