Clinical Characteristics of Peripheral Neuropathy in Kenyan Patients with HIV Infection Compared with Patients with Concurrent HIV Infection and Diabetes Mellitus

Werimo Pascal Kuka¹, Jasmit Shah¹, Uazman Alam²,³, Dilraj Singh Sokhi¹, Reena Shah¹

¹Department of Medicine, Aga Khan University Medical College East Africa, Nairobi, Kenya

²Division of Endocrinology, Diabetes and Gastroenterology, University of Manchester, Manchester, UK

³Diabetes & Endocrinology Research, Institute of Life Course and Medical Sciences and the Pain Research Institute, University of Liverpool and Liverpool University Hospital NHS Foundation Trust, Liverpool, UK.

Corresponding author: Werimo Pascal Kuka (wpkuka@yahoo.com)
# Neuropathy Disability Score and Monofilament Test results

| Neuropathy Disability | Total    | HIV Only | HIV and DM | p value |
|-----------------------|----------|----------|------------|---------|
| Right Vibration       |          |          |            |         |
| Perception Threshold  | 135      | 68 100.0%| 67 98.5%   | 1   |
| Abnormal              | 1        | 0 0.0%   | 1 1.5%     | 0.027 |
| Right Temperature     | 129      | 68 100.0%| 61 92.4%   | 0.718 |
| Perception            |          |          |            |         |
| Normal                | 5        | 0 0.0%   | 5 7.6%     | 0.006 |
| Abnormal              | 128      | 65 95.6% | 63 92.6%   |         |
| Right Pin-Prick       | 8        | 3 4.4%   | 5 7.4%     |         |
| Present               | 101      | 56 82.4% | 45 67.2%   |         |
| Absent                | 13       | 8 11.8%  | 5 7.5%     |         |
| Right Achilles Reflex | 21       | 4 5.9%   | 17 25.4%   |         |
| Present with reinforcement | 126 | 66 97.1% | 60 88.2% | 0.096 |
| Absent                | 10       | 2 2.9%   | 8 11.8%    |         |
| Left Vibration        | 133      | 68 100.0%| 65 95.6%   | 0.244 |
| Perception Threshold  |          |          |            |         |
| Abnormal              | 3        | 0 0.0%   | 3 4.4%     |         |
| Left Temperature      | 129      | 68 100.0%| 61 91.0%   |         |
| Perception            |          |          |            |         |
| Normal                | 6        | 0 0.0%   | 6 9.0%     |         |
| Abnormal              | 126      | 66 97.1% | 60 88.2%   |         |
| Left Pin-Prick        | 10       | 2 2.9%   | 8 11.8%    |         |
| Present               | 94       | 52 76.5% | 42 62.7%   | 0.047 |
| Absent                | 16       | 9 13.2%  | 7 10.4%    |         |
| Left Achilles Reflex  | 25       | 7 10.3%  | 18 26.9%   |         |
| Present with reinforcement | 126 | 66 97.1% | 60 88.2% |         |
| Absent                | 10       | 2 2.9%   | 8 11.8%    |         |
| Neuropathy Disability | mean (SD)|          |            |         |
| Score                 | 1.13 1.86| 0.65 1.27| 1.62 2.21  | 0.008 |
| No Disability         | 93 68.4% | 52 76.5% | 41 60.3%   | 0.032 |
| Disability            | 43 31.6% | 16 23.5% | 27 39.7%   |         |
| Right Foot Monofilament Testing Score |          |          |            |         |
| Normal                | 130      | 65 95.6% | 65 95.6%   | 1         |
| Abnormal              | 6        | 3 4.4%   | 3 4.4%     |         |
| Left Foot Monofilament Testing Score |          |          |            |         |
| Normal                | 130      | 66 97.1% | 64 94.1%   | 0.680    |
| Abnormal              | 6        | 2 2.9%   | 4 5.9%     |         |
| Neuropathy Prevalence | Normal   | 77 56.6% | 40 58.8%   | 0.729    |
| Symptoms only; no signs | 16 11.8% | 12 17.6% | 4 5.9%     | 0.06     |
| Asymptomatic; signs present | 15 11.0% | 5 7.4%   | 10 14.7%   | 0.273    |
| Neuropathy            | 28       | 11 16.2% | 17 25.0%   | 0.289    |