

SMALL FIBER NEUROPATHY IN HIV-SENSORY NEUROPATHY

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Background: The use of anti-retroviral therapy (ART) improves survival in patients with HIV infection and can increase chronic complications such as HIV-sensory neuropathy (HIV-SN). The contribution of large fiber and small fiber neuropathy to HIV-SN is unclear. Detection of small fiber neuropathy (SFN) is important because SFN causes pain and is difficult to treat. This study assesses both SFN and large fiber neuropathy (LFN), based on skin wrinkling tests (SSW) and nerve conduction studies (NCS) respectively, in HIV patients who had received non stavudine ART for more than 1 year.

Methods: A cross sectional study (n=149) was performed at the HIV clinic of Cipto Mangunkusumo General Hospital from August 2015 to February 2017. Physical examinations, the brief peripheral neuropathy screening tool (BPNST), blood tests (HIV RNA, CD4 T-cell counts), and NCS and SSW were performed.

Results: 85/149 subjects (57%) had no neuropathy, 36 subjects (24%) had SFN, 18 (12%) had LFN and 10 (6%) has both SFN and LFN. Subjects with SFN were older (37.5 ± 6.4 vs 34.2 ± 5.2 years) and higher current HIV RNA loads (2417 ± 13989 vs 90 ± 512 copies/ml) than patients with no neuropathy. Patients with LFN were similar to those with no neuropathy. Pain was most common in patients with SFN. The distribution of patients with SFN was similar to the distribution seen with BPNST ($\chi^2=0.36$).

Conclusion: Small fiber neuropathy is more common than LFN and aligns with pain and with HIV-SN assessed with the BPNST. Patients with SFN are slightly older and retain higher levels of HIV RNA. Further analyses of genetic and demographic factors will be presented.

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