Dampak anti retroviral ARV pada HIV anak: kajian pada perubahan nilai intelligence quotient (IQ) dan elektroensefalografi (EEG) = The impact of antiretroviral ARV treatment on HIV-infected children: an evaluation on altered intelligence quotient (IQ) and electroencephalography (EEG) activity

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Abstrak

ABSTRAK
 Latar Belakang: Mayoritas anak dengan HIV memiliki masalah fungsi susunan saraf pusat SSP dan neurokognitif walaupun telah mendapatkan ARV. Gangguan fungsi SSP dan neurokognitif perlu dimonitor secara jangka panjang. Tujuan: Mengetahui perubahan IQ dan gambaran EEG pada pasien HIV anak yang telah memperoleh ARV. Metode: Penelitian kohort retrospektif pada 63 anak dengan HIV berusia 7-17 tahun yang telah memperoleh ARV pasca follow-up dalam 3 tahun dilakukan di Rumah Sakit Cipto Mangunkusumo RSCM . Dilakukan anamnesis, tes IQ, dan EEG. Selanjutnya, dinilai perubahan proporsi IQ dan EEG serta hubungan perubahan IQ dengan stadium klinis HIV, penyakit infeksi SSP, jenis ARV, keteraturan minum ARV, dan jenis sekolah. Hasil: Perubahan proporsi IQ normal menjadi abnormal pada verbal scale, performance, dan full-scale adalah 13 20,6 subyek p=0,002 , 12 19 subyek p=0,035 , dan 10 15,9 subyek p=0,039 . Perubahan proporsi verbal, performance, dan full-scale IQ tidak berhubungan dengan stadium HIV, infeksi SSP, keteraturan minum ARV, dan tipe sekolah. Perubahan proporsi EEG normal menjadi abnormal sebanyak 19 subyek 30,2 p=0,003 . Simpulan: Obat anti retroviral jangka panjang tidak memperbaiki IQ dan gambaran EEG pada pasien HIV anak.

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ABSTRACT
 Background: A majority of HIV-infected children are dealing with central nervous system CNS dysfunction and neurocognitive disorder. CNS dysfunction and neurocognitive disorder need to be monitored in the long-term. Objective: To identify altered IQ and EEG activity in HIV-infected children who had received ARV treatment. Methods: A retrospective cohort study in HIV-infected children aged 7 to 17 years who had received ARV and had 3-year follow up was conducted in Cipto Mangunkusumo Hospital CMH . History taking, IQ test, and EEG was performed. We evaluated changes in IQ proportion, EEG activity and the correlation between altered IQ and HIV infection stages, CNS infection, ARV type, medication adherence and school type. Results: There was an altered proportion of IQ score from normal into abnormal for verbal scale, performance and full scale scores, which occurred in 13 20.6 subjects p=0.002 , 12 19 subjects p=0.035 , and 10 15.9 subjects p=0.039 , respectively; The altered IQ proportion had no correlation with HIV infection stages, CNS infection, medication adherence and school type. The altered proportion of EEG activity was found in 19 30.2 subjects p=0.003 . Conclusion: Long-term ARV does not improve the IQ score and EEG activity in HIV-infected children.