Gambaran kognitif pasien HIV anak yang telah memperoleh terapi Antitretrovirus = Cognitive profile in HIV infected children on Antiretroviral therapy

Herlina, author

Abstrak

[ABSTRAK
 Latar belakang: Pasien HIV anak berisiko tinggi mengalami gangguan neurokognitif akibat keterlibatan sistem saraf pusat (SSP). Prevalens gangguan kognitif tersebut berkisar antara 8%-62%. Pemberian ARV menurunkan viral load di SSP sehingga mencegah penurunan fungsi kognitif. Tujuan penelitian ini untuk memberikan gambaran fungsi kognitif pasien HIV anak dalam terapi ARV.
Metode: Studi potong lintang dilakukan terhadap pasien HIV anak berusia 5-15 tahun. Penilaian kognitif dilakukan dengan instrumen Wechsler intelligence scale for children IV (WISC IV). Pemeriksaan elektroensefalografi bertujuan untuk membuktikan kerusakan akibat keterlibatan SSP pada infeksi HIV.
Hasil: Sembilan puluh pasien HIV anak median usia 9 tahun telah memperoleh ARV dengan median 69 bulan. Hasil rerata verbal, performance, dan full-scale IQ (FSIQ) berturut-turut adalah 88,66 (SB 15,69), 85,30 (SB 15,35), dan 85,73 (SB 15,61). Enam puluh tujuh (74,4%) subjek memiliki verbal IQ normal, 56 (62,2%) performance scale normal, dan 58 (64,4%) FSIQ normal. Hasil EEG abnormal didapatkan pada 22 subjek (22,4%) dan tidak memiliki hubungan dengan stadium klinis, usia dan lama pemberian ARV, serta viral load. Stadium HIV menunjukkan hubungan bermakna dengan komponen verbal scale IQ dan FSIQ (p=0,042 dan p=0,044). Hasil IQ tidak memiliki hubungan dengan usia pemberian ARV, lama pemberian ARV, dan viral load.
Simpulan: Pasien HIV anak dalam terapi ARV memiliki rerata IQ abnormal pada verbal, performance, dan FSIQ. Berdasarkan kategori hasil IQ lebih dari 50% subjek memiliki IQ normal pada ketiga skala WISC. Studi kohort diperlukan untuk menilai apakah pemberian ARV lebih dini dan faktor yang memengaruhi dapat mencegah penurunan fungsi kognitif pasien HIV anakABSTRACT Introduction: Children with HIV infection are at high risk for developing neurocognitive impairment because of central nervous system (CNS) involvement. Prevalence of cognitive impairment is reported between 8%-62%. Decreased viral load due to antiretroviral therapy (ARV) would prevent the decrease of cognitive function. The aim of this study was to describe cognitive function in HIV-infected children on ARV.
Method: We conducted cross sectional study of HIV-infected children aged 5-15 years. Wechsler intelligence scale for children IV (WISC-IV) was administered for assessing cognitive function. Electroencephalograph was performed to prove abnormalities caused by CNS involvement of HIV infection

Results: Ninety HIV-infected children with median age of 9 years had received ARV for median of 69 months. The mean (SD) of verbal, performance, and full scale IQ were 88,66 (SD 15,69), 85,30 (SD 15,35), and 85,73 (SD 15,61) respectively. Sixty seven subjects (74,4%) had normal verbal IQ, 56 subjects (62,2%) had normal performance IQ, and 58 subjects (64,4%) had normal FSIQ. Twenty two children (22,4%) showed EEG abnormality which was not correlated to clinical stage, onset and duration of ARV, and viral load. Clinical stage of HIV showed significant association with verbal and FSIQ (p 0,042 and p 0,044). IQ results did not have association with onset and duration of ARV and viral load.
Conclusion: HIV-infected children on ARV have abnormal mean IQ in verbal, performance and FSIQ. Based on categorical IQ, most subjects have normal verbal, performance, and FSIQ. Cohort study is needed to address whether early ARV can preserve cognitive function.;Introduction: Children with HIV infection are at high risk for developing
neurocognitive impairment because of central nervous system (CNS) involvement. Prevalence of cognitive impairment is reported between 8%-62%. Decreased viral load due to antiretroviral therapy (ARV) would prevent the decrease of cognitive function. The aim of this study was to describe cognitive function in HIV-infected children on ARV.
Method: We conducted cross sectional study of HIV-infected children aged 5-15 years. Wechsler intelligence scale for children IV (WISC-IV) was administered for assessing cognitive function. Electroencephalograph was performed to prove abnormalities caused by CNS involvement of HIV infection
Results: Ninety HIV-infected children with median age of 9 years had received ARV for median of 69 months. The mean (SD) of verbal, performance, and full scale IQ were 88,66 (SD 15,69), 85,30 (SD 15,35), and 85,73 (SD 15,61) respectively. Sixty seven subjects (74,4%) had normal verbal IQ, 56 subjects (62,2%) had normal performance IQ, and 58 subjects (64,4%) had normal FSIQ. Twenty two children (22,4%) showed EEG abnormality which was not correlated to clinical stage, onset and duration of ARV, and viral load. Clinical stage of HIV showed significant association with verbal and FSIQ (p 0,042 and p 0,044). IQ results did not have association with onset and duration of ARV and viral load.
Conclusion: HIV-infected children on ARV have abnormal mean IQ in verbal, performance and FSIQ. Based on categorical IQ, most subjects have normal verbal, performance, and FSIQ. Cohort study is needed to address whether early ARV can preserve cognitive function.;Introduction: Children with HIV infection are at high risk for developing
neurocognitive impairment because of central nervous system (CNS) involvement. Prevalence of cognitive impairment is reported between 8%-62%. Decreased viral load due to antiretroviral therapy (ARV) would prevent the decrease of cognitive function. The aim of this study was to describe cognitive function in HIV-infected children on ARV.

Method: We conducted cross sectional study of HIV-infected children aged 5-15 years. Wechsler intelligence scale for children IV (WISC-IV) was administered for assessing cognitive function. Electroencephalograph was performed to prove abnormalities caused by CNS involvement of HIV infection
Results: Ninety HIV-infected children with median age of 9 years had received ARV for median of 69 months. The mean (SD) of verbal, performance, and full scale IQ were 88,66 (SD 15,69), 85,30 (SD 15,35), and 85,73 (SD 15,61) respectively. Sixty seven subjects (74,4%) had normal verbal IQ, 56 subjects (62,2%) had normal performance IQ, and 58 subjects (64,4%) had normal FSIQ. Twenty two children (22,4%) showed EEG abnormality which was not correlated to clinical stage, onset and duration of ARV, and viral load. Clinical stage of HIV showed significant association with verbal and FSIQ (p 0,042 and p 0,044). IQ results did not have association with onset and duration of ARV and viral load.
Conclusion: HIV-infected children on ARV have abnormal mean IQ in verbal, performance and FSIQ. Based on categorical IQ, most subjects have normal verbal, performance, and FSIQ. Cohort study is needed to address whether early ARV can preserve cognitive function., Introduction: Children with HIV infection are at high risk for developing
neurocognitive impairment because of central nervous system (CNS) involvement. Prevalence of cognitive impairment is reported between 8%-62%. Decreased viral load due to antiretroviral therapy (ARV) would prevent the decrease of cognitive function. The aim of this study was to describe cognitive function in HIV-infected children on ARV.
Method: We conducted cross sectional study of HIV-infected children aged 5-15 years. Wechsler intelligence scale for children IV (WISC-IV) was administered for assessing cognitive function. Electroencephalograph was performed to prove abnormalities caused by CNS involvement of HIV infection
Results: Ninety HIV-infected children with median age of 9 years had received ARV for median of 69 months. The mean (SD) of verbal, performance, and full scale IQ were 88,66 (SD 15,69), 85,30 (SD 15,35), and 85,73 (SD 15,61) respectively. Sixty seven subjects (74,4%) had normal verbal IQ, 56 subjects (62,2%) had normal performance IQ, and 58 subjects (64,4%) had normal FSIQ. Twenty two children (22,4%) showed EEG abnormality which was not correlated to clinical stage, onset and duration of ARV, and viral load. Clinical stage of HIV showed significant association with verbal and FSIQ (p 0,042 and p 0,044). IQ results did not have association with onset and duration of ARV and viral load.
Conclusion: HIV-infected children on ARV have abnormal mean IQ in verbal, performance and FSIQ. Based on categorical IQ, most subjects have normal verbal, performance, and FSIQ. Cohort study is needed to address whether early ARV can preserve cognitive function.]