

## Faktor faktor yang berhubungan dengan kadar testosteron bebas pada pria dengan HIV dalam terapi Antiretroviral = Factors associated with free testosterone level of HIV infected male on antiretroviral therapy

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### Abstrak

[<b>ABSTRAK</b><br>

Latar Belakang. Penderita HIV/AIDS di Indonesia semakin meningkat, sedangkan infeksi HIV/AIDS maupun terapi ARV dapat menyebabkan penurunan kadar testosteron yang sangat memengaruhi kualitas hidup penyandang HIV/AIDS. Gejala dan tanda penurunan kadar testosteron pada pria dengan HIV sangat tidak spesifik, sedangkan pemeriksaan laboratorium sangat mahal, sehingga perlu diketahui faktor-faktor pada pasien yang dapat memprediksi penurunan kadar testosteron.

Tujuan. Mengetahui apakah jumlah CD4 awal, lamanya terapi ARV, jenis ARV, lipodistrofi dan besarnya lingkaran pinggang memengaruhi kadar testosteron bebas pada pria dengan HIV yang mendapat ARV.

Metode. Penelitian potong lintang dilakukan pada bulan Maret 2015 di Unit Pelayanan HIV Terpadu RSCM, Jakarta. Subjek adalah pria dengan HIV berusia 18-40 tahun, mendapat ARV teratur sekurangnya dalam 1 tahun terakhir. Pemeriksaan meliputi anamnesis, pengukuran lingkaran pinggang dan lipodistrofi, pemeriksaan kadar testosteron total, SHBG dan testosteron bebas (Free Testosterone Index: FTi). Uji regresi linier digunakan untuk menilai faktor-faktor yang berhubungan dengan kadar testosteron bebas pada penelitian ini.

Hasil. Dari 54 subjek, didapatkan median usia 35,11 tahun (21-40), median lamanya ARV 59 bulan (16-129), median CD4 awal 57/mm<sup>3</sup> (3-443), rerata lingkaran pinggang 82,4cm (SB 10,33). Subjek yang mengalami lipodistrofi sebanyak 17 orang (32%). Subjek yang menggunakan ARV lini pertama 48 orang. Median kadar testosteron bebas 30,87% (9,78-85,64) dan subjek yang memiliki kadar testosteron bebas rendah sebanyak 32 orang (59%). Terdapatnya lipodistrofi ( $p=0,003$ , OR= -12,25) dan lamanya menggunakan ARV ( $p=0,002$ , OR=-0,182) berhubungan dengan kadar testosteron bebas pada penelitian ini. Simpulan : Pada pria dengan HIV yang mendapat terapi ARV, adanya lipodistrofi dan lamanya terapi ARV berhubungan dengan kadar testosteron bebas. Kadar CD4 awal, jenis ARV dan lingkaran pinggang tidak berhubungan dengan kadar testosteron bebas.

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<b>ABSTRACT</b><br>

Background. There are increasing numbers of people living with HIV/AIDS in Indonesia. HIV/AIDS infection could cause a decrease in testosterone level which affect patients' quality of life. Symptoms of decreasing testosterone level in HIV infected male are very unspecific, while laboratory tests are costly.

Therefore it is important to know factors that could predict a decrease in HIV patient's testosterone level.

Purpose. To know the correlation between initial CD4 count, duration and type of ARV, lipodystrophy, size of waist circumference with free testosterone level of HIV infected male on ARV.

Method. A cross-sectional study was conducted March 2015 in HIV Integrated Clinic, RSCM, Jakarta. The subjects were 18-40 years old, got regular ARV therapy for at least 1 year. Examination includes measuring waist circumference, presence of lipodystrophy, examination of total testosterone, SHBG and free

testosterone level (Free Testosterone Index:FTi). Linear regression used to analyze factors associated with free testosterone level in this study.

Results. Of 54 subjects examined, the median age was 35.11 years (21-40), median duration of antiretroviral therapy was 59 months (16-129), mean of waist circumference was 82.4 cm (SB 10.33), median of initial CD4 level was 57/mm<sup>3</sup> (3-443). Total subjects with lipodystrophy were 17 subjects (32%), subjects who used first-line combination were 48 and 6 subjects used a second line combination. Median level of free testosterone levels was 30.87% (9.78-85.64) and there were 32 subjects with a low free testosterone level (59%). The presence of lipodystrophy ( $p=0,003$ , OR=-12,225) and duration of antiretroviral therapy ( $p=0,002$ , OR=-0,182) are associated with free testosterone level.

Conclusions. Among HIV infected male who receiving antiretroviral therapy, the presence of lipodystrophy and duration of antiretroviral therapy are associated with free testosterone levels. There were no association between initial CD4 count, type of antiretroviral therapy and waist circumference with free testosterone levels.;Background. There are increasing numbers of people living with HIV/AIDS in Indonesia. HIV/AIDS infection could cause a decrease in testosterone level which affect patients' quality of life. Symptoms of decreasing testosterone level in HIV infected male are very unspecific, while laboratory tests are costly.

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