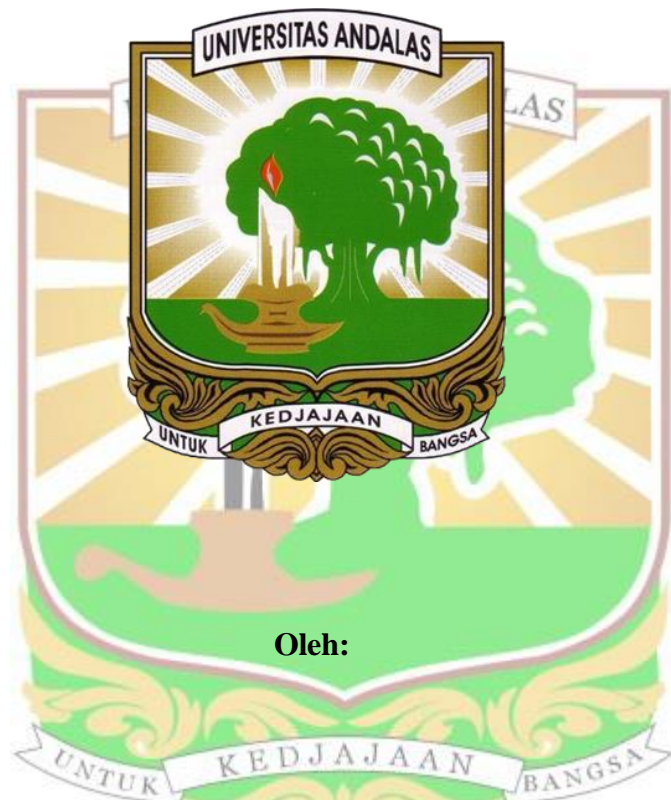


TESIS

HUBUNGAN KADAR GLUTAMAT PLASMA DENGAN KUALITAS TIDUR PADA PENDERITA *HUMAN IMMUNODEFICIENCY VIRUS (HIV)*



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ABSTRAK

Latar belakang: Gangguan kualitas tidur sering dijumpai pada penderita *human immunodeficiency virus* (HIV). Kualitas tidur yang terganggu dapat mempengaruhi imunitas yang akhirnya dapat meningkatkan morbiditas dan mortalitas penderita. Gangguan kualitas tidur pada penderita HIV berkaitan dengan neurotoksisitas akibat virus HIV yang merusak arsitektur tidur. Infeksi HIV dapat menyebabkan peningkatan glutamat ekstraseluler otak. Peningkatan glutamat berperan dalam kerusakan dan kematian neuron dan glial. Penelitian ini bertujuan untuk menilai hubungan antara kadar glutamat plasma dengan kualitas tidur pada penderita HIV.

Metode: Penelitian menggunakan desain *cross-sectional*. Sampel adalah penderita HIV di poliklinik *voluntary counseling test* (VCT) Penyakit Dalam RSUP Dr. M. Djamil Padang yang memenuhi kriteria inklusi dan eksklusi. Sampel dipilih dengan metode *consecutive*. Kualitas tidur dinilai menggunakan kuesioner *pittsburgh sleep quality index* (PSQI). Kadar glutamat plasma diukur dengan metode ELISA. Analisis statistik menggunakan SPSS dengan nilai $p < 0,05$ dianggap bermakna secara statistik.

Hasil: Sampel penelitian berjumlah 82 orang. Median kadar glutamat plasma adalah 16,39 $\mu\text{g/mL}$. Gangguan kualitas tidur ditemukan pada 45 (54,9%) penderita HIV. Tidak terdapat hubungan yang bermakna antara kadar glutamat plasma ($p=0,506$), usia ($p=0,795$), jenis kelamin ($p=0,547$), pendidikan ($p=0,358$), pekerjaan ($p=0,255$), durasi penyakit ($p=0,348$), stadium ($p=0,309$) dan jenis terapi ARV ($p=0,791$) dengan kualitas tidur penderita HIV. Dari penelitian ini didapatkan hubungan yang bermakna antara kualitas tidur dengan *body mass index* (BMI) ($p=0,015$) dan status perkawinan ($p=0,039$).

Kesimpulan: Tidak terdapat hubungan antara kadar glutamat plasma dengan kualitas tidur pada penderita HIV. Terdapat faktor lain yang berpengaruh terhadap kualitas tidur yaitu BMI dan status perkawinan.

Kata Kunci: HIV, kualitas tidur, glutamat

RELATIONSHIP BETWEEN PLASMA GLUTAMATE LEVELS AND SLEEP QUALITY IN PATIENTS WITH HUMAN IMMUNODEFICIENCY VIRUS (HIV)

ABSTRACT

Background: Disturbance sleep quality is often found in sufferers of human immunodeficiency virus (HIV). Disturbed sleep quality can affect immunity, which ultimately can increase patient morbidity and mortality. Impaired sleep quality in HIV sufferers is related to neurotoxicity due to the HIV virus, which damages sleep architecture. HIV infection can cause an increase in brain extracellular glutamate. Elevated glutamate plays a role in neuronal and glial damage and death. This study aimed to assess the relationship between plasma glutamate levels and sleep quality in HIV sufferers.

Methods: The research uses a cross-sectional design. The samples were HIV sufferers in a polyclinic voluntary counseling test (VCT) internal medicine of Dr. M. Djamil General Hospital Padang, who met the inclusion and exclusion criteria. Samples are selected by consecutive methods. Sleep quality was assessed using a questionnaire called the Pittsburgh sleep quality index (PSQI). Plasma glutamate levels were measured using the ELISA method. Statistical analysis using SPSS with a p-value <0.05 was considered statistically significant.

Results: The research sample consisted of 82 people. The median plasma glutamate level was 16.39 $\mu\text{g/mL}$. Impaired sleep quality was found in 45 (54.9%) HIV sufferers. There was no significant relationship between plasma glutamate levels ($p=0.506$), age ($p=0.795$), gender ($p=0.547$), education ($p=0.358$), occupation ($p=0.255$), disease duration ($p=0.348$), stage ($p=0.309$) and type of ARV therapy ($p=0.791$) with sleep quality in HIV sufferers. From this research, a significant relationship was found between sleep quality, body mass index (BMI) ($p=0.015$), and marital status ($p=0.039$).

Conclusion: There is no relationship between plasma glutamate levels and sleep quality in HIV sufferers. There are other factors that influence sleep quality, namely BMI and marital status.

Keywords: HIV, sleep quality, glutamate.



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