

Aktivitas epileptiform pada elektroensefalografi pasien epilepsi dengan hiperventilasi selama lima menit = Epileptiform activity in electroencephalography epilepsy patient during 5 minutes hyperventilation

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20389732&lokasi=lokal>

Abstrak

[Latar belakang—Untuk menentukan sindrom epilepsi selain anamnesis juga diperlukan adanya bukti gelombang elektroensefalografi (EEG) yang spesifik. Salah satu cara dengan melakukan teknik hiperventilasi (HV) untuk membangkitkan abnormalitas gelombang EEG. Stimulasi hiperventilasi dapat menimbulkan bangkitan umum dan parsial. Dengan mengetahui hal tersebut dapat menentukan terapi dan prognosis pasien epilepsi. Tujuan Mengetahui waktu terjadinya gelombang epileptiform tertinggi selama durasi HV 5 menit pada pemeriksaan EEG untuk meningkatkan manfaat pemeriksaan penunjang yang mendukung kearah diagnosis epilepsi.

Metode Penelitian ini merupakan penelitian prospektif secara historis menggunakan teknik hiperventilasi selama 5 menit saat pemeriksaan EEG untuk mencari aktivitas epileptiform pada EEG pasien epilepsi dan atau dengan bangkitan epileptik di Rumah Sakit Cipto Mangunkusumo.

Hasil— Dari 70 subyek penelitian didapatkan paling banyak tipe bangkitan parsial dengan sindrom epilepsi lobus temporal sebagai jenis sindrom terbanyak.

Pada menit ke-2 stimulasi hiperventilasi terjadi aktivitas epileptiform paling banyak sedangkan pada menit ke-1 dan ke-5 terdapat aktivitas epileptiform paling sedikit. Terdapat hubungan yang bermakna antara bangkitan terkontrol

obat dengan aktivitas epileptiform dan atau dengan bangkitan epileptik ($p=0.043$).

Pada subyek yang tidak terkontrol obat mempunyai resiko mengalami aktivitas epileptiform 0.22 kali lebih besar dibandingkan dengan yang terkontrol obat.

Sedangkan faktor lainnya seperti jenis sindrom, tipe, onset dan frekuensi bangkitan tidak menunjukkan perbedaan yang bermakna ($p=0.119$; $p=0.392$; $p=0.636$; $p=1.000$).

Simpulan— Penelitian saat ini menunjukkan aktivitas epileptiform paling banyak terdapat pada menit ke-2 stimulasi hiperventilasi. Terdapat kecenderungan pasien

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pemeriksaan hiperventilasi selama 5 menit

.....Background Diagnosis of epilepsy syndrome beside clinical judgement is also required specific wave evidence from electroencephalography (EEG). One of the method is to perform the hyperventilation techniques (HV) which can generate wave EEG abnormalities. Stimulation of hyperventilation can cause general and partial seizures. By knowing these things, we can determine further treatment and prognosis of the epilepsy patients.

Objective— To determine the highest timing of the wave emergence during 5

minutes hyperventilation in the EEG to improve the benefits of supporting the investigation towards the diagnosis of epilepsy.

Methods— The study was conducted using a historical prospective study design. All samples were collected in Cipto Mangunkusumo Hospital and undergo EEG with 5 minutes hyperventilation technique to look for epileptiform activity.

Results— From 70 subjects obtained, most of it are partial seizures with temporal lobe epilepsy syndrome as the most syndrome types. In the 2nd minute of hyperventilation stimulation occurs epileptiform activity most widely while at minute 1 and 5 are less epileptiform activity. There is a significant relationship between controlled drug patients with epileptiform activity and or with epileptic seizures ($p = 0.043$). In subjects who are at risk of uncontrolled drug had epileptiform activity 0.22 times larger than the controlled drug. While other factors such as the type of syndrome, type, onset and frequency of seizure showed no significant difference ($p = 0.119$, $p = 0.392$, $p = 0.636$, $p = 1.000$).

Conclusions— The present study showed epileptiform activity are most common in the 2nd minute stimulation hyperventilation. There is a tendency of uncontrolled epilepsy patients who are at risk of experiencing epileptiform activity 0.22 times greater than the drug controlled patients during 5 minutes hyperventilation techniques.

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