Ketebalan kompleks intima-media karotis komunis pada pasien epilepsi yang menggunakan obat antiepilepsi generasi lama di RSUPN Dr. Cipto Mangunkusumo = Common carotid intima-media thickness of epilepsy patients with first generation antiepileptic drugs at Cipto Mangunkusumo General Hospital

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Abstrak

[ABSTRAK
Latar Belakang. Pasien epilepsi memerlukan obat antiepilepsi (OAE) dalam waktu lama, minimal 1-2 tahun.OAE yang terbanyak digunakan di Indonesi adalah OAE generasi lama yaitu karbamazepin, fenitoin, fenobarbital, dan valproat.Karbamazepin, fenitoin, dan fenobarbital dapat menyebabkan stres oksidatif dan peningkatan kolesterol sedangkan menyebabkan resistensi insulin.Keempat OAE dapat menyebabkan peningkatan homosistein.Hal tersebut dapat menyebabkan disfungsi endotel yang merupakan awal dari aterosklerosis.Ketebalan kompleks intima-media (KIM) karotis komunis dapat digunakan sebagai indikator dari aterosklerosis.Oleh karena itu diperlukan pengukuran ketebalan KIM karotis komunis pada pasien epilepsi yang menggunakan OAE generasi lama untuk deteksi awal aterosklerosis.
Metode penelitian.Penelitian ini menggunakan desain potong lintang untuk melihat perbandingan ketebalan KIM karotis komunis kelompok studi (pasien epilepsi) dengan kelompok kontrol (populasi normal) dengan usia dan jenis kelamin yang disesuaikan. Variabel independen adalah usia, jenis kelamin, jumlah OAE, jenis OAE, dan durasi OAE.
Hasil.Didapatkan sampel masing-masing 46 subjek kelompok studi dan kontrol. Median ketebalan KIM karotis komunis kelompok studi (0,49 (0,36-1,40) mm) lebih dari kontrol (0,43 (0,35-0,77) mm) secara bermakna. Pada penelitian ini tidak didapatkan hubungan antara usia, jenis kelamin, jumlah OAE, jenis OAE, durasi OAE dengan ketebalan KIM karotis komunis pada pasien epilepsi. Kesimpulan.Ketebalan KIM karotis komunis pasien epilepsi yang menggunakan OAE generasi lama lebih tebal dari kelompok kontrol.
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ABSTRACT
Background.Epilepsy patients requires long-term antiepileptic drugs (AEDs) at least for 1-2 years. The most common AEDs used in Indonesia are first generation AEDs which are carbamazepine (CBZ), phenytoin (PHT), phenobarbital (PB), and valproate (VPA). The first three AEDs may cause oxidative stress and increased cholesterol level while VPA causes insulin resistance. All AEDs cause increased homocysteine level. All those factors could cause endothelial dysfunction which is known as initial process in atherosclerosis. Common carotid intima-media thickness (CC IMT) is a well-known indicator of atherosclerosis. Therefore CC IMT measurement on epilepsy patients with old generation AEDs is required for early detection of atherosclerosis.
Methods. This was a cross-sectional study that comparing CC IMT of epilepsy patients and control group (normal subjects) with age and sex matched. The independent variables were age, sex, number of AEDs, type of AEDs, and duration of AEDs.
Results.There were 46 subjects for each group. The CC IMT median of epilepsy patients (0,49 (0,36-1,40)

mm) were significantly thicker than control group (0,43 (0,35-0,77) mm). There were no association of age, sex, number of AEDS, type of AEDs, duration of AEDs with CC IMT.
Conclusions.CC IMT of epilepsy patients with first generation AEDs was higher than control group.;Background.Epilepsy patients requires long-term antiepileptic drugs (AEDs) at least for 1-2 years. The most common AEDs used in Indonesia are first generation AEDs which are carbamazepine (CBZ), phenytoin (PHT), phenobarbital (PB), and valproate (VPA). The first three AEDs may cause oxidative stress and increased cholesterol level while VPA causes insulin resistance. All AEDs cause increased homocysteine level. All those factors could cause endothelial dysfunction which is known as initial process in atherosclerosis. Common carotid intima-media thickness (CC IMT) is a well-known indicator of atherosclerosis. Therefore CC IMT measurement on epilepsy patients with old generation AEDs is required for early detection of atherosclerosis.
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