Gambaran kadar serum asam folat pada orang dengan epilepsi yang menggunakan obat anti epilepsi generasi lama = Serum levels of folate in people with epilepsy using first generation anti epileptic drugs

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Abstrak

[ABSTRAK
Latar Belakang. Obat Anti Epilepsi (OAE) generasi lama banyak digunakan di Rumah Sakit sebagai terapi epilepsi. Beberapa studi terdahulu telah mengonfirmasi bahwa terapi OAE generasi lama terasosiasi dengan penurunan rerata kadar serum asam folat. Penurunan kadar serum asam folat ini berhubungan dengan anemia, defisit kognitif, penyakit vaskular, kanker, gangguan psikiatri, aborsi spontan dan malformasi kongenital. Oleh karena itu, maka dilakukan penelitian mengenai kadar serum folat pada ODE yang menggunakan OAE generasi lama di Indonesia. Metode. Desain penelitian adalah potong lintang untuk mengetahui gambaran kadar serum asam folat ODE pengguna OAE generasi lama (fenitoin, fenobarbital, karbamazepin dan asam valproat) jika dibandingkan dengan populasi normal serta kaitan dengan asupan. Subyek penelitian sejumlah 75 orang didapatkan di poli rawat jalan RSUPN Cipto Mangunkusumo dan Yayasan Epilepsi Indonesia yang dibandingkan dengan 76 orang populasi normal. Dilakukan wawancara pola makan melalui metode food recall, pemeriksaan laboratorium kadar folat. Hasil. Didapatkan kadar rerata serum asam folat sebesar 9.95 + 3.61 ng/mL pada ODE pengguna OAE generasi lama. Populasi normal didapatkan kadar rerata 4.59 + 2.4 ng/mL (p=<0.001). Rerata asupan diet setara folat kelompok studi 119.7 (28.4-340) microgram, kelompok kontrol 104.65 (38-510) microgram (p=0.095). Simpulan. Rerata kadar serum asam folat ODE yang menggunakan OAE generasi lama lebih tinggi dari rerata kadar serum asam folat populasi normal secara bermakna. Hanya terdapat 2,7% ODE dengan kadar asam folat rendah secara bermakna. Tidak ada perbedaan bermakna antara jumlah asupan diet folat dengan klasifikasi kadar serum asam folat pada ODE.
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ABSTRACT
Background. Antiepileptic drugs (AEDs) are frequently used in the treatment of epilepsy, psychiatric diseases, and pain syndromes. Studies have established that chronic anticonvulsant therapy can lead to folate deficiency. Anti-convulsant-induced folate deficiency has been associated with megaloblastic anemia, cognitive decline, vascular diseases, cancer, psychiatric comorbidity, spontaneous abortion and teratogenesis. Thus, patients with epilepsy are a suitable population to investigate the association of AED treatment with folate serum levels in comparison with normal population. Method. This is comparative cross-sectional study focusing on the level and intake of folate in relation with AED (phenytoin, phenobarbital, carbamazepine, valproic acid) in epileptic patients in outpatient clinic of Neurology Cipto Mangunkusumo General Hospital and Indonesia Epilepsy Foundation, with comparison to normal population. Seventy five epileptic patients and seventy six healthy people were recruited with food recall interview and their serum folate were measured. Results. The mean folate serum of study group were 9.95 + 3.61 ng/mL and the mean folate serum of control group were 4.59 + 2.4 ng/mL (p=<0.001). The mean dietary folate of study group were 119.7 (28.4-340) microgram and the mean dietary folate of control group

104.65 (38-510) microgram (p=0.095). Conclusion. The mean folate serum in study group were significant much more higher compare with the control group. As many as 2.7% of study group with significantly low folate serum level. There were no any significant association of dietary folate with folate serum classification of study group. ;Background.. Antiepileptic drugs (AEDs) are frequently used in the treatment of epilepsy, psychiatric diseases, and pain syndromes. Studies have established that chronic anticonvulsant therapy can lead to folate deficiency. Anti-convulsant-induced folate deficiency has been associated with megaloblastic anemia, cognitive decline, vascular diseases, cancer, psychiatric comorbidity, spontaneous abortion and teratogenesis. Thus, patients with epilepsy are a suitable population to investigate the association of AED treatment with folate serum levels in comparison with normal population. Method. This is comparative cross-sectional study focusing on the level and intake of folate in relation with AED (phenytoin, phenobarbital, carbamazepine, valproic acid) in epileptic patients in outpatient clinic of Neurology Cipto Mangunkusumo General Hospital and Indonesia Epilepsy Foundation, with comparison to normal population. Seventy five epileptic patients and seventy six healthy people were recruited with food recall interview and their serum folate were measured. Results. The mean folate serum of study group were 9.95 + 3.61 ng/mL and the mean folate serum of control group were 4.59 + 2.4 ng/mL (p=<0.001). The mean dietary folate of study group were 119.7 (28.4 ? 340) microgram and the mean dietary folate of control group 104.65 (38-510) microgram (p=0.095). Conclusion. The mean folate serum in study group were significant much more higher compare with the control group. As many as 2.7% of study group with significantly low folate serum level. There were no any significant association of dietary folate with folate serum classification of study group. , Background.. Antiepileptic drugs (AEDs) are frequently used in the treatment of epilepsy, psychiatric diseases, and pain syndromes. Studies have established that chronic anticonvulsant therapy can lead to folate deficiency. Anti-convulsant-induced folate deficiency has been associated with megaloblastic anemia, cognitive decline, vascular diseases, cancer, psychiatric comorbidity, spontaneous abortion and teratogenesis. Thus, patients with epilepsy are a suitable population to investigate the association of AED treatment with folate serum levels in comparison with normal population. Method. This is comparative cross-sectional study focusing on the level and intake of folate in relation with AED (phenytoin, phenobarbital, carbamazepine, valproic acid) in epileptic patients in outpatient clinic of Neurology Cipto Mangunkusumo General Hospital and Indonesia Epilepsy Foundation, with comparison to normal population. Seventy five epileptic patients and seventy six healthy people were recruited with food recall interview and their serum folate were measured. Results. The mean folate serum of study group were 9.95 + 3.61 ng/mL and the mean folate serum of control group were 4.59 + 2.4 ng/mL (p=<0.001). The mean dietary folate of study group were 119.7 (28.4 – 340) microgram and the mean dietary folate of control group 104.65 (38-510) microgram (p=0.095). Conclusion. The mean folate serum in study group were significant much more higher compare with the control group. As many as 2.7% of study group with significantly low folate serum level. There were no any significant association of dietary folate with folate serum classification of study group.]