Pengaruh asupan garam terhadap tekanan darah nokturnal pada pasien hipertensi yang mendapatkan terapi penyekat EKA = Effects of salt intake to nocturnal blood pressure in hypertensive patients administered Angiotensin Converting Enzyme (ACE) inhibitors

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Abstrak

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 Latar Belakang : Hipertensi merupakan faktor resiko utama penyakit kardiovaskular,
terutama sindrom koroner akut dan stroke. Peningkatan konsumsi garam berhubungan dengan kenaikan tekanan darah. Beberapa studi randomized-controlled trial (RCT) menyatakan bahwa konsumsi rendah garam dapat menurunkan tekanan darah pada populasi dewasa dengan atau tanpa hipertensi. Variabilitas tekanan darah selama 24 jam bersifat dinamis. Peningkatan darah nokturnal memiliki makna klinis yang cukup besar, merupakan salah satu prediktor dari penyebab kerusakan target organ, terutama kejadian kardiovaskular dan stroke. Asupan garam dapat mempengaruhi variasi tekanan darah 24 jam, yang dalam hal ini dapat juga berpengaruh pada hipertensi nokturnal. Obat penyekat EKA merupakan obat hipertensi lini pertama yang sering digunakan, terutama pada usia muda dan hipertensi yang disertai sindrom metabolik, mengingat peranan Sistem Renin Angiotensin memiliki peranan yang sangat penting dalam patofisiologi hipertensi. Asupan garam juga memiliki peranan pada patofisiologi terjadinya hipertensi dalam sistem Renin Angiotensin. Sedikit studi yang meneliti perpaduan obat penyekat EKA dengan asupan rendah garam dalam menrunkan kejadian hipertensi. Oleh karena itu, Menarik untuk diteliti pengaruh asupan garam dengan tekanan darah nokturnal pada pasien yang mengkonsumsi obat penyekat EKA.
Tujuan : Menilai pengaruh asupan garam dengan tekanan darah nokturnal pada pasien hipertensi yang mendapatkan terapi penyekat EKA.
Metode : Pasien poliklinik berusia 30 ? 50 tahun yang terdiagnosis hipertensi dan belum pernah mendapatkan anti-hipertensi sebelumnya, dibagi menjadi 2 kelompok (asupan rendah garam (Na <15 g/hari) dan asupan tinggi garam ≥15 g/hari). Kedua kelompok akan diberikan lisinopril dan dilakukan pemeriksaan natrium urin 24 jam dan home blood pressure monitoring..
Hasil Penelitian : Sebanyak 80 pasien hipertensi pasien hipertensi yang belum mendapatkan terapi diikutsetakan dalam penelitian ini, yang terdiri dari 37 pasien kelompok rendah garam dan 43 pasien kelompok tinggi garam. Kelompok pasien dengan asupan rendah garam memliki delta penurunan darah nokturnal sistolik (p<0,001), diastolic (p<0,001), dan rerata arteri (p<0,001) yang lebih besar dibandingkan pada kelompok asupan tinggi garam. Rerata asupan garam pada penelitian ini sebesar 16,77 gram/hari. Pada analisa multivariat didapatkan delta penurunan tekanan darah tidak dipengaruhi oleh usia, jenis kelamin, dislipidemia, IMT, dan durasi tidur.

Kesimpulan : Penelitian ini membuktikan asupan rendah garam dapat mempengaruhi efektivitas terapi penyekat EKA dalam menurunkan tekanan darah nokturnal. ABSTRACT
 Background : Hypertension is one of important risk factor of cardiovascular
disease, especially acute coronary syndrome and stroke. High salt intake correlates to high blood pressure. Some Randomized-Controlled-Trials stated that low salt intake may decrease blood pressure in adult population with or without hypertension. Blood pressure variation in 24 hours is not static but dynamically changes. Increasing nocturnal blood pressure has significantly impacts, and become one of predictor of target organ damage, especially cardiovascular events and stroke. Salt intake may interferes both 24 hours blood pressure variation and nocturnal blood pressure. Angiotensin Converting Enzyme(ACE) Inhibitors is first drug of choice anti-hypertensive therapy, especially in young age and associated with metabolic syndrome, due to important role of Renin Angiotensin Aldosterone System in pathophysiology of hypertension, whereas salt intake also has role in that system. Only few of studies that had proved combination of ACE Inhibitors and low salt intake in decreasing blood pressure in hypertension population. Therefore, it is so important to know the impact of low salt intake to nocturnal blood pressure in hypertension patient treated with ACE Inhibitors.
Objectives : To know impact of low salt intake to nocturnal blood pressure in hypertension patient treated with ACE Inhibitors.
Methods : There are 30 ? 50 years old ambulatory patients diagnosed as untreated hypertension, divided into two groups (low salt intake (Na <15 grams/day) and high salt intake (≥15 grams/day). Both of groups were administered Lisinopril 10mg and underwent 24-hours sodium urine collection and home blood pressure monitoring periodically.
Results : There are 80 ambulatory patients diagnosed as untreated hypertension, consist of 37 patients in low salt intake group and 43 patients in high salt intake group. Low salt intake group has lower nocturnal systolic ($p<0.001$), diastolic ($p<0.001$), and mean arterial ($p<0.001$) blood pressure compared with high salt intake group. Mean salt intake in this study was 16.77 grams/day. Multivariate analyzes showed that the difference of decreasing nocturnal blood pressure was not interfered by age, sex, dyslipidemia, BMI, and sleep duration.
Conclusion : This study has proved that low salt intake may interfere ACE Inhibitors therapy effectiveness in decreasing nocturnal blood pressure.;Background : Hypertension is one of important risk factor of cardiovascular
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