

Respon tekanan darah pasien hipertensi ras Melanesia dan ras non Melanesia dengan pemberian penyekat enzim angiotensin = Blood pressure response in hypertensive patients Melanesian race and non Melanesian race with angiotensin converting enzyme inhibitors

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Abstrak

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Latar belakang. Hipertensi merupakan salah satu kondisi yang paling banyak ditemukan pada pelayanan kesehatan primer yang dapat meningkatkan mortalitas dan morbiditas apabila tidak mendapatkan pengobatan yang tepat. Beberapa penelitian menunjukkan respon penurunan tekanan darah pada ras kulit hitam berbeda dibanding ras kulit putih dengan antihipertensi golongan penyekat EKA, hal ini ditunjang dengan perbedaan PRA pada kedua kelompok ras ini. Belum terdapat data tentang respon tekanan darah pasien hipertensi ras Melanesia dengan pemberian penyekat EKA yang ditunjang dengan pemeriksaan kadar PRA pada kelompok ras ini. Objektif. Menilai apakah terdapat perbedaan respon terapi terhadap penyekat enzim konversi angiotensin (EKA) pada pasien hipertensi ras Melanesia dan ras non Melanesia.

Metode. Penelitian ini adalah penelitian kohort prospektif yang dilakukan di kota Jayapura bulan September-November 2015 terhadap 85 subyek usia 30 sampai 55 tahun dengan hipertensi yang belum pernah diobati sebelumnya. Subyek terbagi atas 2 grup yaitu ras Melanesia (n=34) dan ras Non Melanesia (n=51). Kedua grup tersebut diberikan lisinopril dosis awal 5 mg. Pemeriksaan tekanan darah dilakukan pada awal dan diulangi setiap 7 hari selama 4 minggu berturut-turut.

Hasil. Terdapat perbedaan respon tekanan darah pasien hipertensi ras Melanesia dan ras Non Melanesia. Perbedaan tekanan darah sistolik sebesar $24,5 \pm 9,4$ mmHg pada subyek ras Melanesia dan pada subyek Non Melanesia sebesar $34,5 \pm 13,5$ mmHg ($p < 0,001$). Perbedaan tekanan darah diastolik subyek ras Melanesia sebesar $13,3 \pm 5,5$ mmHg dan pada subyek Non Melanesia sebesar $22,6 \pm 9,3$ mmHg ($p < 0,001$). Perbedaan tekanan rerata arteri pada subyek ras Melanesia sebesar $17,1 \pm 5,6$ mmHg dan pada subyek ras Non Melanesia sebesar $26,21 \pm 8,8$ mmHg ($p < 0,001$). Rerata kadar Plasma Renin Activity (PRA) pada subyek ras Melanesia sebesar $1,48 [1,86]$ ng/ml/jam dan pada subyek ras Non Melanesia rerata kadar PRA sebesar $1,1 [1,47]$ ng/ml/jam. Tidak terdapat hubungan yang bermakna rerata kadar PRA pada kedua kelompok ras ini ($p = 0,564$).

Kesimpulan. Terdapat perbedaan penurunan tekanan darah (sistolik, diastolik dan tekanan rerata arteri) dengan pemberian penyekat EKA pada kelompok ras Melanesia dan kelompok ras Non Melanesia dan hal ini tidak berhubungan bermakna dengan rerata kadar PRA pada kedua kelompok ini sehingga kemungkinan terdapat faktor lain yang mempengaruhi respon penurunan tekanan darah dengan penyekat EKA.

ABSTRACT
Hypertension is one of

the most common conditions in primary health care that increase mortality and morbidity if it does not receive appropriate therapy. Several studies show that blacks response differently compared with white in conjunction with a decrease of blood pressure in response to administer ACE inhibitor. The studies supported by PRA differences in both group of race. There are no data of blood pressure response in hypertensive patients in Melanesian race by administering ACE inhibitor supported with PRA levels examination in this group of race.

Objective. To compare therapeutic response of angiotensin converting enzyme blockers (ACE) inhibitor in reducing blood pressure between Melanesian and Non Melanesian hypertensive patients.

Method. This study is a prospective cohort study conducted in the city of Jayapura September to November 2015. We found 85 subjects aged 30 to 55 years old with hypertension never be treated before. Subjects are divided into two groups, namely the Melanesian race (n = 34) and non Melanesian race (n = 51).

Both groups were given an initial dose of 5 mg of lisinopril. Blood pressure checks performed at baseline and repeated every 7 days for 4 weeks in a row.

Results. There are differences in the response of blood pressure in hypertensive patient of Melanesian race and Non Melanesian race. Reduction of systolic blood pressure of 24.5 ± 9.4 mmHg in subject Melanesian race and on the subject of Non Melanesian 34.5 ± 13.5 mmHg ($p < 0.001$). Reduction of diastolic blood pressure of subjects Melanesians of 13.3 ± 5.5 mmHg, and on the subject of Non Melanesia 22.6 ± 9.3 mmHg ($p < 0.001$). Reduction of mean arterial pressure in subject Melanesian race at 17.1 ± 5.6 mmHg and Non Melanesian race at 26.21 ± 8.8 mmHg ($p < 0.001$). Mean Plasma Renin Activity (PRA) on the subject of the Melanesian race at $1.48 [1.86]$ ng/ml/h and on the subject of non Melanesian race PRA average level of $1.1 [1.47]$ ng/ml/hr. There was no significant relationship mean PRA levels in both these racial groups ($p = 0.564$).

Conclusion. There are differences in blood pressure reduction (systolic, diastolic pressure and mean arterial pressure) with administer of ACE inhibitor in Melanesian and Non Melanesian group of race. There is no significant relation with average PRA levels in both group of race. Another factors affects responses of reduction blood pressure with administer of ACE inhibitor may be considered.; **Background.** Hypertension is one of the most common conditions in primary health

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