

INTISARI

RISIKO PENINGKATAN KADAR FIBRINOGEN PLASMA PASIEN HIPERTENSI DIBANDINGKAN NON HIPERTENSI SETELAH PEMBERIAN INJEKSI INTRAVITREAL BEVACIZUMAB PADA RETINOPATI DIABETIKA

Ni Luh Putu Widhyasti¹, Angela Nurini Agni¹, Agus Supartoto¹, Usi Sukorini²

1. Departemen Ilmu Kesehatan Mata, Fakultas Kedokteran, Kesehatan Masyarakat dan Keperawatan Universitas Gadjah Mada/ RSUP dr. Sardjito
2. Departemen Patologi Klinik dan Kedokteran Laboratorium, Fakultas Kedokteran, Kesehatan Masyarakat dan Keperawatan Universitas Gadjah Mada/RSUP dr. Sardjito

Pendahuluan :

Injeksi intravitreal bevacizumab dapat terdeteksi dalam plasma dan dapat menyebabkan keadaan hiperkoagulasi, yang berkaitan dengan risiko tinggi mortalitas kardiovaskular.

Tujuan :

Mengetahui risiko peningkatan kadar fibrinogen plasma pasien hipertensi dibandingkan non hipertensi setelah pemberian injeksi intravitreal bevacizumab (IVB) pada retinopati diabetika

Metode :

Penelitian ini menggunakan desain kohort. Subjek penelitian ini adalah pasien retinopati diabetika yang dilakukan injeksi intravitreal bevacizumab (IVB). Subjek terdiri dari 2 kelompok yaitu kelompok terpapar (hipertensi) (n=32) dan tidak terpapar (non hipertensi) (n=32) dengan keluaran peningkatan fibrinogen. Penelitian dilakukan di RSUP dr. Sardjito bulan Maret hingga Juni 2019. Pasien dilakukan wawancara dengan menggunakan kuesioner kemudian dilakukan pemeriksaan fisik, status oftalmologis dan pemeriksaan kadar fibrinogen menggunakan mesin ACLTOP300 sebelum dan 1 minggu setelah IVB. Perbedaan rerata kadar fibrinogen sebelum dan setelah IVB pada kedua kelompok dinilai menggunakan uji rerata dua kelompok tidak berpasangan. Proporsi pasien yang mengalami peningkatan kadar fibrinogen pada kedua kelompok diuji dengan uji proporsi dua populasi.

Hasil :

Rerata kadar fibrinogen sebelum IVB pada pasien hipertensi 364.22±47.48 mg/dL dan pada pasien non hipertensi 352.59±43.57 mg/dL dengan nilai $p>0,05$. Rerata kadar fibrinogen setelah IVB pada pasien hipertensi 363.06±53.32 mg/dL dan pada pasien non hipertensi 346.18±51.27 mg/dL dengan nilai $p>0,05$. Risiko terjadi peningkatan kadar fibrinogen pada pasien hipertensi RR 1.182 (0.626-2.233). Risiko peningkatan kadar fibrinogen pada pasien hipertensi terhadap risiko tinggi penyakit kardiovaskular RR 1.131 (0.847-1.509).

Kesimpulan :

Tidak didapatkan risiko peningkatan kadar fibrinogen yang signifikan setelah dilakukan IVB pada kelompok hipertensi dibandingkan non hipertensi pada pasien retinopati diabetika. Proporsi pasien yang menjadi berisiko tinggi terjadinya penyakit kardiovaskular setelah IVB tidak berbeda bermakna antara kelompok hipertensi dan non hipertensi.

Kata Kunci :

fibrinogen, kadar fibrinogen, hipertensi, bevacizumab, IVB, retinopati diabetika

ABSTRACT

THE RISK OF ELEVATED PLASMA FIBRINOGEN LEVEL IN HYPERTENSIVE AND NON-HYPERTENSIVE PATIENTS AFTER BEVACIZUMAB INTRAVITREAL INJECTION IN DIABETIC RETINOPATHY

Ni Luh Putu Widhyasti¹, Angela Nurini Agni¹, Agus Supartoto¹, Usi Sukorini²

1. Departement of Ophthalmology, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada-dr. Sardjito General Hospital
2. Department of Clinical Pathology and Laboratory Medicine, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada-dr. Sardjito General Hospital

Introduction :

Bevacizumab intravitreal injection could be detectable in plasma that might cause a hypercoagulable state, which is associated with high cardiovascular mortality risk.

Purpose :

To investigate the risk of elevated plasma fibrinogen level in hypertensive and non-hypertensive patients after bevacizumab intravitreal injection in diabetic retinopathy

Methods :

This was a cohort study, included of 32 hypertensive patients as an exposed group and 32 non-hypertensive patients as an unexposed group with diabetic retinopathy who underwent bevacizumab intravitreal injection (IVB). This study was conducted at Sardjito General Hospital from March to June 2019. Patients were interviewed and investigated for physical condition and ophthalmological examination. Fibrinogen level was measured using ACLTOP300 machine prior and 1 week after IVB. The difference in mean fibrinogen level prior and after IVB between two groups were assessed using independent t-test. The proportion of patients who had fibrinogen level increasing in both groups was tested by two populations proportions test.

Results :

The mean fibrinogen level prior to IVB in hypertensive patients was 364.22 ± 47.48 mg/dL and in non-hypertensive patients was 352.59 ± 43.57 mg/dL (p value >0.05). The mean value of fibrinogen levels after IVB in hypertensive patients was 363.06 ± 53.32 mg/dL and in non-hypertensive patients was 346.18 ± 51.27 mg/dL (p value >0.05). Hypertensive patients had 1.182 (0.626-2.233) higher risk of increased fibrinogen level compared to non-hypertensive patients. The risk of hypertensive patients with increased fibrinogen level to develop cardiovascular disease was 1.131 (0.847-1.509).

Conclusion :

There was no significant risk of elevated fibrinogen level after bevacizumab intravitreal injection between hypertensive and non-hypertensive groups in patients with diabetic retinopathy. The proportion of patients at high risk for cardiovascular disease after bevacizumab intravitreal injection did not differ significantly between the two groups.

Keywords :

Fibrinogen, hypertension, bevacizumab, IVB, diabetic retinopathy