

INTISARI

PERBEDAAN KADAR FIBRINOGEN PADA RETINOPATI DIABETIKA DENGAN EDEMA MAKULA DAN TANPA EDEMA MAKULA

Farida Selviana, Tri Wahyu Widayanti, Wasisdi Gunawan, Tri Ratnaningsih
Departemen Ilmu Kesehatan Mata, Fakultas Kedokteran, Kesehatan Masyarakat, dan
Keperawatan Universitas Gadjah Mada

Tujuan Menilai perbedaan kadar fibrinogen serum antara penderita retinopati diabetika dengan Edema Makula Diabetika (EMD) dan tanpa EMD.

Desain Penelitian potong lintang

Metode Lima puluh subjek DM tipe 2 dengan retinopati diabetika (RD). Subjek menjalani pemeriksaan *Ocular Computed Tomography* dan dibedakan menjadi dua kelompok, yaitu kelompok satu RD tanpa EMD dan kelompok dua RD dengan EMD. Pengambilan sampel darah dilakukan untuk menilai kadar fibrinogen dengan alat *fully automatic coagulometer ACL Top 300 (IL)*. Perbedaan rerata kadar fibrinogen dinilai menggunakan uji t 2 data tidak berpasangan. Rasio Prevalensi (RP) antara hubungan fibrinogen dengan kejadian EMD dianalisis uji *chi square*.

Hasil Kadar fibrinogen subjek RD dengan EMD lebih tinggi secara signifikan dibanding subjek tanpa EMD ($442,56 \pm 61,21$ mg/dl vs $357,32 \pm 52,76$ mg/dl) ($p < 0,001$). Subjek dengan kadar fibrinogen $> 429,25$ mg/dl secara bermakna memiliki proporsi kejadian EMD lebih banyak dibandingkan subjek dengan kadar fibrinogen $< 359,5$ mg/dl dengan RP 5,5 (IK 95% 1,53-19,71; $p < 0,001$). Analisis kadar fibrinogen berdasarkan derajat keparahan RD diperoleh perbedaan bermakna subjek NPDR vs PDR ($368,53 \pm 67,10$ vs $416,12 \pm 68,49$; $p = 0,02$). Terdapat perbedaan signifikan kadar fibrinogen subjek EMD vs tanpa EMD pada subjek NPDR dan PDR ($p = 0,003$; $p < 0,001$). Terdapat perbedaan signifikan kadar fibrinogen subjek NPDR dengan EMD vs PDR tanpa EMD ($414,63 \pm 63$ vs $374,06 \pm 44,28$; $p = 0,004$).

Kesimpulan Terdapat perbedaan bermakna kadar fibrinogen pada penderita RD dengan EMD dan tanpa EMD.

Kata kunci: retinopati diabetika, edema makula diabetika, fibrinogen, diabetes melitus, *fully automatic coagulometer ACLTop300 (IL)*

ABSTRACT

FIBRINOGEN LEVEL IN DIABETIC RETINOPATHY PATIENTS WITH DIABETIC MACULAR EDEMA AND WITHOUT DIABETIC MACULAR EDEMA

Farida Selviana, Tri Wahyu Widayanti, Wasisdi Gunawan, Tri Ratnaningsih
Department of Ophthalmology, Faculty of Medicine, Public Health, and Nursing,
Universitas Gadjah Mada

Purpose To investigate the difference of serum fibrinogen level in diabetic retinopathy (DR) patients with diabetic macular edema and without DME.

Design Cross-sectional study

Methods Fifty type 2 DM subjects underwent OCT examination and divided into two groups, the first is DR without DME and the second group is DR with DME. Blood samples were taken and assessed for fibrinogen using a fully automatic coagulometer ACLTop300 (IL). The difference in mean fibrinogen was analyzed using t test for two unpaired groups. The Prevalence Ratio (PR) between fibrinogen and DME was analyzed using chi square test.

Results Fibrinogen level in DR subjects with DME was significantly higher than subjects without DME (442.56 ± 61.21 mg/dl vs 357.32 ± 52.76 mg/dl) ($p < 0.001$). Subjects with fibrinogen level > 429.25 mg/dl have significantly higher proportion with DME compared to subjects with fibrinogen level < 369.50 mg/dl (PR 5.5 ; CI 95%; 1.53-19.71; $p < 0,001$). Analysis of fibrinogen levels based on DR severity yielded a significance difference between NPDR vs PDR subjects ($p = 0.02$). There was also a significance difference in fibrinogen level between subjects with DME and without DME in NPDR and PDR ($p = 0.003$; $p < 0.001$). Fibrinogen levels between NPDR subjects with DME and PDR without DME also showed a significance difference ($p = 0.004$).

Conclusion There was a significant difference in fibrinogen level between DR subjects with DME and without DME.

Keywords: diabetic retinopathy, diabetic macular edema, fibrinogen, diabetes mellitus, fully automatic coagulometer ACLTop300 (IL)