Analisis 8 iso prostaglandin f2a serta hubungannya dengan estimasi lfg pada pasien diabetes melitus tipe 2 yang mengkonsumsi sulfonilurea dan kombinasi biguanid sulfonilurea = Analysis of 8 iso prostaglandin f2a and its correlation with estimated gfr in type 2 diabetes mellitus patients consuming sulfonylurea and combination of biguanide sulfonylurea

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Abstrak

Gangguan fungsi ginjal merupakan komplikasi yang sering terjadi pada pasien diabetes melitus tipe 2 yang dapat ditandai oleh senyawa 8-iso-Prostaglandin F2a. Pada penelitian ini, dilakukan analisis hubungan antara kadar 8-iso-Prostaglandin F2a dengan estimasi Laju Filtrasi Glomerulus (eLFG). Sampel yang dianalisis adalah 50 pasien diabetes melitus tipe 2 di RSK Dr. Sitanala Tangerang yang terbagi menjadi dua yaitu kelompok sulfonilurea dan kombinasi biguanid-sulfonilurea dengan teknik total sampling. Penelitian ini merupakan penelitian observasional dengan metode kohort retrospektif. Nilai eLFG diperoleh berdasarkan kadar kreatinin serum, sedangkan kadar 8-iso-Prostaglandin F2a diukur dengan metode Enzyme Linked Immunosorbent Assay (ELISA). Uji beda dilakukan terhadap nilai eLFG antara kedua kelompok, yaitu Cockroft Gault (p = 0,961), MDRD (p = 0,567), CKD-EPI (p = 0,443), serta pada kadar 8-iso-Prostaglandin F2a (p = 0,070). Hubungan antara kadar 8-iso-Prostaglandin F2 dengan nilai eLFG dianalisis pada seluruh sampel (n=48), yaitu Cockroft-Gault (r = 0,329; p = 0,023), MDRD (r = 0,231; p = 0,115) dan CKD-EPI (r = 0,256; p = 0,079). Sehingga, tidak terdapat perbedaan nilai eLFG dan kadar 8-iso-Prostaglandin F2a di antara kedua kelompok. Terdapat hubungan yang bermakna antara kadar 8-iso-Prostaglandin F2a dengan nilai eLFG berdasarkan Cockroft-Gault, namun tidak terdapat hubungan pada nilai eLFG MDRD dan CKD-EPI.

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Renal dysfunction is a common complication in type 2 diabetes mellitus patient that can be characterized by 8-iso-prostaglandin F2a compound. The aim of this study was to analyze the correlation between the level of 8-iso-prostaglandin F2a and estimated Glomerular Filtration Rate (eGFR). Samples analyzed were 50 patients with type 2 diabetes mellitus in Dr. Sitanala Tangerang Hospital were divided into two groups of sulfonylurea and combination of biguanide-sulfonylurea using total sampling technique. This study was an observasional study using cohort retrospective method. The value of eGFR obtained by serum creatinine levels, while the level of 8-iso-Prostaglandin F2a measured by the method of Enzyme Linked Immunosorbent Assay (ELISA). Different test carried out on eGFR values between the two groups, those were Cockroft-Gault (p = 0,961), MDRD (p = 0,567), CKD-EPI (p = 0,443), as well as on the level of 8-iso-prostaglandin F2a (p = 0.070). The correlation between the levels of 8-iso-prostaglandin F2a with eGFR was analyzed on all samples (n=48), those are Cockroft-Gault (r = 0,329; p = 0,023), MDRD (r = 0,231; p = 0,115) and CKD-EPI (r = 0,256; p = 0,079). Thus, there was no difference in eGFR values and levels of 8-iso-Prostaglandin F2a between the two groups. There was significant correlation between the levels of 8-iso-Prostaglandin F2a and eGFR values were calculated by Cockroft-Gault equation, meanwhile there was no correlation in eGFR values were calculated by MDRD and CKD-EPI equation.