

ABSTRAK

Diperkirakan sebanyak 422 juta jiwa di seluruh dunia mengidap diabetes. Dalam 30 tahun terakhir, diabetes menjadi penyakit yang meningkat secara signifikan di semua negara dengan semua tingkat pendapatan. Diabetes melitus tipe 2 adalah dampak kronis dari gangguan sinyal insulin yang menyebabkan resistensi insulin ditandai dengan hiperglikemia. Salah satu sitokin pro inflamasi, yaitu IL-6 berperan dalam patogenesis diabetes melitus tipe 2. Sitokin pro inflamasi ini, terlibat dalam inflamasi memicu disfungsi endotel dan atherosklerosis *melalui Reactive Oxygen Species*(ROS). Penelitian ini bertujuan untuk mengetahui hubungan kadar IL-6 dan kadar gula darah pada penderita diabetes melitus tipe 2 Pra Lansia. 30 pasien diperiksa kadar gula darah dan IL-6, kemudian data hasil penelitian dilakukan uji normalitas menggunakan *saphiro-wilk* dan uji korelasi menggunakan *spearman*. Berdasarkan penelitian yang dilakukan didapatkan rata rata hasil kadar gula darah adalah 271,26 mg/dL dan rata rata hasil IL-6 adalah 38 pg/mL. IL-6 meningkat pada 9 pasien laki-laki dan 8 pasien perempuan. Hasil uji normalitas menunjukkan data tidak normal ($p>0.00$) dan hasil uji korelasi non parametric menggunakan uji *spearman* menunjukkan bahwa tidak terdapat hubungan antara kadar IL-6 dan kadar gula darah pada pasien DM tipe 2 pra lansia ($p<0.61$).

Kata kunci: *Interleukin-6*(IL-6), Gula Darah, Diabetes Melitus Tipe 2, Hiperglikemia

ABSTRACT

An estimated 422 million people have diabetes nowadays. In the last 30 years, diabetes has become a disease that has increased significantly in all countries at all income levels. Type 2 diabetes mellitus is a chronic result of impaired insulin signaling that causes insulin resistance characterized by hyperglycemia. One of the pro-inflammatory cytokines, IL-6, plays a role in the pathogenesis of type 2 diabetes mellitus. This pro-inflammatory cytokine, involved in inflammation triggers endothelial dysfunction and atherosclerosis through Reactive Oxygen Species (ROS). This study aims to determine the relationship between IL-6 levels and blood sugar levels in patients with type 2 diabetes mellitus Pre-elderly. 30 patients were examined for blood sugar and IL-6 levels, then the data from the study were tested for normality using saphiro-wilk and correlation test using spearman. Based on the research conducted, the average blood sugar level result was 271.26 mg/dL and the average IL-6 result was 38 pg/mL. IL-6 increased in 9 male patients and 8 female patients. The results of the normality test showed that the data were not normal ($p>0.00$) and the results of the non-parametric correlation test using the spearman test showed that there was no relationship between IL-6 levels and blood sugar levels in pre-elderly type 2 DM patients ($p<0.61$).

Keywords: Interleukin-6(IL-6), Blood Sugar, Type 2 Diabetes Mellitus, Hyperglycemia