

Prevalensi diabetes mellitus dan prevalensi gangguan toleransi glukosa serta hubungannya dengan status besi subjek thalassemia mayor usia 8-18 tahun = Prevalence of diabetes mellitus and glucose intolerance and its association with iron profile in 8-18 years old major thalassemia subjects

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Abstrak

ABSTRAK

Latar belakang: Thalassemia merupakan suatu penyakit gen tunggal yang disebabkan oleh kerusakan pada gen dalam mengontrol produksi protein sehingga sel darah merah akan mudah pecah dan pengikatan oksigen terganggu. Hal ini akan memicu terjadinya anemia dan membutuhkan transfusi darah secara rutin dan seumur hidup. Transfusi darah rutin menyebabkan terjadinya akumulasi besi yang memicu beberapa komplikasi, salah satunya adalah gangguan pada fungsi pankreas. Tujuan: Untuk mengetahui hubungan antara profil besi dengan gangguan fungsi pankreas berupa diabetes mellitus dan gangguan toleransi glukosa pada subjek thalassemia mayor. Metode: Desain potong-lintang pada 79 subjek thalassemia mayor di Pusat Thalassemia RS Cipto Mangunkusumo Jakarta. Hasil: Dua 2,53 subjek mengalami gangguan toleransi glukosa dan 77 97,47 subjek dengan nilai toleransi glukosa normal. Nilai median feritin serum pada kelompok gangguan toleransi glukosa yakni 5595,5 2062,0-9199,0 ng/mL sedangkan yang tidak mengalami gangguan toleransi glukosa yakni 3309,0 487,0-11247,0 ng/mL $p = 0,574$. Nilai median saturasi transferin pada subjek gangguan toleransi glukosa yakni 76 52-100 sedangkan yang tidak mengalami gangguan toleransi glukosa yakni 89 11-100 $p = 0,827$. Kesimpulan: Tidak didapatkan adanya hubungan yang signifikan antara kadar feritin serum dan saturasi transferin terhadap gangguan fungsi pankreas.

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ABSTRACT

Background Thalassemia is a single gene disease that is caused by defect on gene which controls the protein production that eventually leads to red blood cell lysis and defect on oxygen binding capacity. Therefore, the patient needs regular blood transfusion during his lifetime. Regular blood transfusion causes iron accumulation that leads to complications such as defect on pancreas function. Aim To know the association between iron profile and defect on pancreas function such as diabetes mellitus and glucose intolerance in major thalassemia subjects. Methods Cross sectional design on 79 major thalassemia subjects in Thalassemia Center of RS Cipto Mangunkusumo, Jakarta. Results Two 2.53 subjects were glucose intolerant and 77 97,47 subject has a normal blood glucose. Median value of serum ferritin level in glucose intolerant subjects was 5595.5 2062,0 9199,0 ng mL meanwhile the median value of serum ferritin level in normal glucose level subjects was 3309.0 487,0 11247,0 ng mL $p 0.574$. The median value of transferrin saturation in glucose intolerant patients is 76 52 100 meanwhile the median value of transferrin saturation level in normal glucose level subjects is 89 11 100 $p 0,827$. Conclusion There is no significant association between serum ferritin level and transferrin saturation and defect of pancreas function.