

## Pengaruh kelasi besi oral terhadap fungsi ginjal pasien thalassemia mayor = Effect of oral iron chelator in thalassemia major renal function

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### Abstrak

**ABSTRAK**  
Latar belakang. Kelasi besi diduga berperan terhadap penurunan fungsi ginjal pada pasien thalassemia mayor. Data fungsi ginjal pasien thalassemia mayor yang menggunakan kelasi besi oral di Jakarta masih terbatas. Tujuan. Mengetahui penurunan fungsi ginjal pasien thalassemia mayor yang mendapat kelasi besi oral dan faktor yang memengaruhinya. Metode penelitian. Penelitian dilakukan bulan Maret ndash; Juli 2017 pada pasien thalassemia mayor yang mendapat kelasi besi oral tunggal selama minimal 1 tahun. Fungsi ginjal dinilai dengan laju filtrasi glomerulus berdasarkan formula Schwartz revisi Fungsi tubulus ginjal dinilai dengan peningkatan rasio kalsium kreatinin urin hiperkalsiuria . Hasil penelitian. Total subjek sebanyak 54 orang 28 deferipron, 26 deferasiroks . Proporsi LFG menurun pada kelompok deferipron lebih tinggi dibandingkan deferasiroks 53,6 vs 46,2 . Hiperkalsiuria lebih banyak ditemukan pada kelompok deferasiroks dibandingkan deferipron 12,9 vs 3,6 . Penurunan LFG bermakna pada kelompok deferipron tetapi tidak bermakna pada kelompok deferasiroks. Tidak terdapat perbedaan bermakna LFG dan rasio kalsium kreatinin urin antara kelompok deferipron vs deferasiroks  $p=0,427$ ;  $p=0,109$  . Usia, hemoglobin, rerata hemoglobin, feritin, dosis kelasi besi dan saturasi transferin hanya memengaruhi fungsi tubular ginjal. Simpulan. Terdapat penurunan fungsi ginjal pada pasien thalassemia mayor yang mendapatkan kelasi besi oral. Fungsi ginjal pada thalassemia perlu dinilai berkala meski penurunannya tidak bermakna secara klinis. Kata kunci: Thalassemia, fungsi ginjal, kelasi besi

**ABSTRACT**  
Background. Iron chelator can cause renal dysfunction in thalassemia major patients. Data of renal function in thalassemia major patients who receive oral iron chelator are limited. Objective. To determine kidney dysfunction in thalassemia major patients receiving oral iron chelator and its correlating factors. Methods. The study was conducted in March ndash; July 2017 on thalassemia major patients treated with single oral iron chelator for at least 1 year. Renal function determined by glomerular filtration rate measured with revised Schwartz formula. Tubular function determined by increased urine calcium creatinine ratio hypercalciuria . Results. Total subjects were 54 28 deferiprone, 26 deferasirox . Proportion of decreased GFR in deferipron group was higher than deferasirox 53,6 vs 46,2 . Hypercalciuria was higher in deferasirox group than deferiprone 12,9 vs 3.6 . Declining of GFR was significant in deferiprone group but not significant in deferasirox group. There was no significant difference of GFR and urinary creatinine calcium ratio in deferiprone vs deferasirox group  $p 0.427$   $p 0.109$  . Age, hemoglobin level, mean hemoglobin, ferritin, iron chelator dose and transferrin saturation only affecting kidney tubular function. Conclusions. Renal dysfunction was found in thalassemia major patients receiving oral iron chelator. Kidney function in thalassemia major patients should be monitored periodically eventhough the decline was not significant. Keywords Thalassemia, renal function, oral iron chelator