

ABSTRAK

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Program Studi : Fakultas Kedokteran Umum
Judul : Hubungan Kadar Feritin dengan Fungsi Kognitif
Pasien Talasemia β Mayor dan Tinjauannya
Menurut Pandangan Islam

Latar Belakang: Talasemia β mayor disebabkan oleh sintesis rantai β globin yang tidak ada sama sekali. Menurut survey Kementerian Kesehatan Republik Indonesia (Kemenkes RI), setiap tahun sekitar 300.000-500.000 bayi baru lahir disertai dengan kelainan hemoglobin berat, dan 50.000 hingga 100.000 anak meninggal akibat talasemia β mayor. Pemberian transfusi darah pada pasien talasemia β mayor menyebabkan penimbunan besi. Kelebihan besi menyebabkan adanya akumulasi besi di otak, sehingga penyandang talasemia β mayor memiliki risiko tiga kali lipat untuk memiliki gangguan fungsi kognitif. Dalam tinjauan Islam tersirat dalam hadis yang menjelaskan betapa urgen dan vitalnya akal bagi seorang yang beragama. Selain itu, hukum transfusi darah dapat disebut sebagai masalah *ijtihad*.

Metode: Jenis penelitian ini menggunakan metode deskriptif analitik untuk menyelidiki hubungan sebab-akibat dengan desain penelitian *cross sectional* dan cara pengambilan sampel menggunakan *total sampling*. Sampel pada penelitian ini adalah 48 pasien talasemia β mayor di RSUP Fatmawati Jakarta yang telah memenuhi kriteria inklusi.

Hasil: Responden yang memiliki kadar feritin $> 1000 \mu\text{g/L}$ yaitu sebanyak 44 responden (91,7%) dengan rerata feritin adalah $3865,3 \mu\text{g/L} \pm 3684,8$. Dan responden yang memiliki gangguan fungsi kognitif sebanyak 32 responden (66,7%). Berdasarkan uji *chi square* responden dengan kadar feritin $>1000 \mu\text{g/L}$ yang cenderung mengalami gangguan fungsi kognitif sebanyak 32 responden (66,7%) dengan *p-value* sebesar 0,003.

Kesimpulan: Terdapat hubungan antara kadar serum feritin dengan fungsi kognitif pasien talasemia β mayor khususnya pada domain visuospasial dan abstraksi. Namun perlu adanya penelitian lebih lanjut mengenai faktor risiko lainnya yang mempengaruhi fungsi kognitif pasien talasemia β mayor. Dalam tinjauan Islam tentang hukum transfusi darah yang diperbolehkan apabila dalam keadaan darurat (bahkan dianjurkan).

Kata Kunci: *Talasemia β mayor, Feritin, Fungsi kognitif*

ABSTRACT

Name : Sri Anita Setiawati (1102017222)
Study Programe : Medicine
Title : Correlation Between Feritine Level and Cognitive Function of β Thalassemia Major Patients and Its Overview According to Islamic View

Background: β thalassemia major is caused by the absence of β globin chain synthesis at all. According to a survey by the Ministry of Health of the Republic of Indonesia, every year around 300,000-500,000 newborns are accompanied by severe hemoglobin disorders, and 50,000 to 100,000 children die from thalassemia major. Administration of blood transfusions in patients with β thalassemia major causes iron accumulation. Excess iron causes iron accumulation in the brain, so that people with β thalassemia major have three times the risk of developing cognitive dysfunction. In the Islamic review implicit in the hadith which explains how urgent and vital reason is for a religious person. In addition, the law of blood transfusion can be called a problem of *ijtihad*.

Methods: This type of research uses descriptive analytical methods to investigate the causal relationship with design cross sectional and the sampling method uses total sampling. The sample in this study were 48 patients with β thalassemia major at Fatmawati General Hospital Jakarta who had met the inclusion criteria.

Results: Respondents who had ferritin levels $> 1000 \mu\text{g} / \text{L}$ were 44 respondents (91.7%) with a mean ferritin was $3865.3 \mu\text{g} / \text{L} \pm 3684.8$. And respondents who have cognitive dysfunction were 32 respondents (66.7%). Based on the test of chi square respondents with ferritin levels $> 1000 \mu\text{g} / \text{L}$ who tended to experience impaired cognitive function were 32 respondents (66.7%) with a p-value of 0.003.

Conclusion: There is a correlation between serum ferritin levels and cognitive function of β thalassemia major patients, especially in the visuospatial and abstraction domains. However, further research is needed regarding other risk factors that affect cognitive function of β thalassemia major patients. In the Islamic review of the law of blood transfusion that is allowed in an emergency (even recommended).

Keywords: β thalassemia major, Ferritin, Cognitive function