Pattern of complications and burden of disease in patients affected by beta thalassaemia major in Ampang hospital

Syazarin FN¹, Dorothy MA², Siamala DS¹, Norasmidar AA¹, Jameela S¹

¹Department of Haematology, Ampang Hospital, Selangor, Malaysia
²Department of Internal Medicine, Temerloh Hospital, Pahang, Malaysia

Abstract

Beta thalassaemia major patients are known to have many complications despite intensive transfusion program, combined chelation therapy and various imaging monitoring methods. Objective: The aim of this study is to characterise the burden of beta thalassaemia major patients in Ampang hospital in terms of prevalence of iron-overloaded complications and the patients’ physical and social well-being. Methods: Data of 64 beta thalassemia major patients were compiled from the patients’ database (eHis) in Ampang hospital from year 2013 to 2018. All patients included for this review were transfusion dependent patients. Complications of these patients which include cardiac iron overload, pulmonary hypertension, arrhythmia, osteoporosis, hypogonadism, diabetes, transaminitis, hepatitis B or C infection, leg ulcers, musculoskeletal pain and mortality were analysed using SPSS version 21 software. Results: The patients were aged between 20 to 44 years old. The mean pre-transfusion haemoglobin was 8.55 ± 1.52 g/dL and the mean ferritin level was 4561.50 ± 4341.38 ug/L. Cardiac iron overload were found in 30 patients (46.9%), osteoporosis in 5 patients (7.8%) and diabetes mellitus in 13 patients (20.3%). 11 patients (17.2%) have either hepatitis B or C infection and 22 patients (34.4%) were found to have musculoskeletal pain. Thirty patients (46.9%) had hypogonadism, 12 patients (18.8%) transaminitis and no patients were found to have leg ulcers in this study. In our study, 38 patients (59.4%) were on dual iron chelation agents, which were deferiprone and deferoxamine, 13 patients (20.3%) on deferiprone, 10 patients (15.6%) on deferoxamine, and 3 patients (4.7%) on deferasirox monotherapy. There were 2 mortality cases (3.1%) in this study. Conclusion: The commonest complication in this study was cardiac iron overload. There is a need to improve the management of thalassaemia, especially among patients affected by beta thalassaemia major as most patients with iron-related complications experience physical and social restrictions.

Keywords: Beta thalassaemia major, complications, physical and social wellbeing

*Author for Correspondence