We report a 64 year old man with type I CD36 deficiency. He diagnosed as having diffuse large B cell non-Hodgkin’s lymphoma (NHL) and treated with chemotherapy and radiation. He had no history of previous blood transfusions. His electrocardiogram (ECG) and echocardiogram were almost normal. However, 123I-β-methyl-iodophenyl pentadecanoic acid (BMIPP) cardiac scintigraphy showed complete absence of BMIPP accumulation in the heart (Figure 1). Flow cytometry analysis revealed absence of CD36 on the monocytes and platelets (Figure 2), suggesting the diagnosis of type I CD36 deficiency, as well as NHL. In patients with type I CD36 deficiency, immunization with CD36 antigen by transfusion, could produce anti-CD36 antibody, and potentially lead to platelet transfusion refractoriness or posttransfusion purpura. When transfusion lead to platelet transfusion refractoriness or posttransfusion purpura, we must take Type I CD36 deficiency into consideration.

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References

Figure 1. 123I-β-methyl-iodophenyl pentadecanoic acid (BMIPP) cardiac scintigram. A) normal subject. B) Defect of BMIPP accumulation in the heart in this case.

Figure 2. Flow cytometry for the surface expression of CD36 on both platelets and monocytes. Upper: the present case. Lower: normal control.