## Type I CD36 Deficiency in Hematologic Disorder

**Haematologica 2004;** 89:(11)e136

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, $^{123}$I-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 posttansfusion purpura.[1-3] When transfusion lead to platelet transfusion refractoriness or posttansfusion purpura, we must take Type I CD36 deficiency into consideration.

*Yasuo Aota, Masahiko Sumi, Tomotaka Iguchi, Sei-ichi Okabe, Akihiko Gotoh, and Kazuma Ohyashiki*
*First Department of Internal Medicine, Tokyo Medical University*
*6-7-1 Nishi-shinjuku, Shinjuku-ku, Tokyo 160-0023, Japan*

**Figure 1.** $^{123}$I-β-methyl-iodophenyl pentadecanoic acid (BMIPP) cardiac scintigram. A) ormal subject. B) Defect of BMIPP accumulation in the heart in this case.

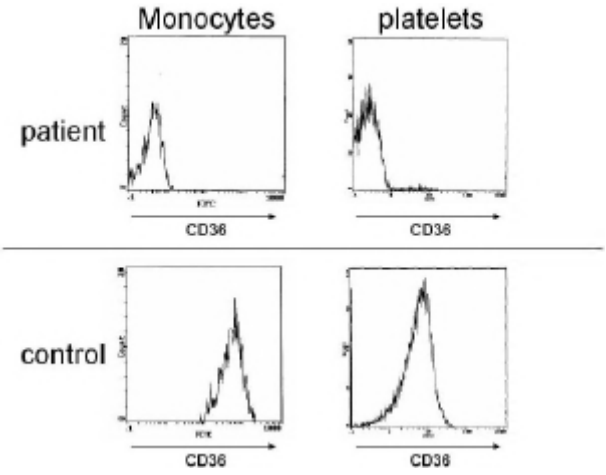


**Figure 2.** Flow cytometry for the surface expression of CD36 on both platelets and monocytes. Upper: the present case. Lower: normal control.

### References

1. Bierling P, et al. Posttransfusion purpura-like syndrome associated with CD36 (Nak$^a$) isoimmunization.Transfusion 35: 777-782, 1995.
2. Greenwalt DE,et al. Membrane glycoprotein CD36: a review of its role in adherence, signal transfusion medicine. Blood 80: 1105-1115, 1992.
3. Hirooka K,et al Improvement in cardiac function and free fatty acid metabolism in a case of dilated cardiomyopathy with CD36 deficiency.Jpn Circ J 64: 731-735, 2000.