Iron Deficiency Thrombocytopenia: A Case Report

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Abstract

Objective: To describe a rare case of thrombocytopenia secondary to iron deficiency. Clinical Presentation and Intervention: A 34-year-old woman presented with severe microcytic hypochromic anemia and thrombocytopenia. Her ferritin was 1 ng/dl. A diagnosis of iron deficiency anemia and thrombocytopenia was made and the patient was treated with packed red blood cell transfusion and intravenous iron. Thrombocytopenia rapidly improved to normal. Conclusion: This case showed that iron deficiency should be considered as a cause of thrombocytopenia in the appropriate setting after ruling out common causes.

Introduction

Iron deficiency is a common cause of thrombocytosis [1] but can rarely cause thrombocytopenia [2–5]. We present a case of thrombocytopenia secondary to iron deficiency.
**Discussion**

Although thrombocytosis is common in iron deficiency [1], few cases of thrombocytopenia have been reported [2–5]. In a recent retrospective study [6], thrombocytopenia was detected in 2.1% patients with iron deficiency anemia. The exact mechanism of this is not well understood and may be related to the alteration in the activity of iron-dependent enzymes in thrombopoiesis [7]. Using experimental animal models, Karpatkin et al. [8] showed that iron is required for platelet production.

Following iron supplementation, our patient had thrombocytosis before normalization of platelet count, a phenomenon reported previously [5]. Since it is a very treatable condition, ‘iron deficiency thrombocytopenia’ should be kept in mind in patients with iron deficiency and thrombocytopenia after common causes of thrombocytopenia have been ruled out.

**Conclusion**

This case showed that iron deficiency should be considered as one of the differential diagnoses of thrombocytopenia in the appropriate setting after ruling out common causes.

**References**