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Case Report OMICS International

Adolescent with Transvaginal Bleeding: Rare Presentation of Immune Thrombocytopenic Purpura

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Abstract

Immune thrombocytopenic purpura (ITP) is a common pediatric disease characterized by a low circulating platelet count. A 12-year-old female presented to the Emergency Department with menorrhagia of 10 days. Her physical exam was remarkable for ecchymosis in the lower extremities with petechia in the ankles. Hemoglobin and Hematocrit were 7.7 g/dl and 23.4% with platelets of 10/mm³ and giant platelets seen on the smear. She was admitted in the inpatient unit and successfully treated. ITP is a diagnosis of exclusion and a complete workup should be performed to rule out other etiologies. The risk of serious bleeding remains small.

Keywords: Immune thrombocytopenic purpura; Autoimmune disorder; Transvaginal bleeding; Menorrhagia; Thrombocytopenia; Intravenous immunoglobulin

Introduction

Immune thrombocytopenic purpura (ITP) is an autoimmune disorder characterized by a low circulating platelet count caused by destruction of antibody-sensitized platelets in the reticuloendothelial system [1]. We report a case of a 12 year old female who presented to the pediatric emergency department with menorrhagia as a presenting symptom of ITP.

Case Presentation

A 12-year-old female presented to the emergency department with menorrhagia of 10 days. She was referred by the primary care doctor due to normocytic normochromic anemia secondary to heavy menstrual bleeding with a hemoglobin of 7.7 g/dl, hematocrit of 23.4% and with platelets 10/mm³ with giant platelets seen on the smear. The white blood cell count and coagulation panel were normal. This was the first episode of menorrhagia and menarche started 3 months prior to this event with menstrual periods lasting for 4 days. The physical exam was remarkable for tachycardia, systolic murmur grade 2/6, ecchymosis in the lower extremities with petechia in the ankles and heavy transvaginal bleeding with clots. The patient was admitted to the inpatient unit where a detailed workup was performed. She was managed with packed red blood cells, platelet transfusions and intravenous immunoglobulin (IVIG). She was started on iron and multivitamin. On discharge, complete blood count showed hemoglobin/hematocrit of 8.6/25, and a platelet count of 192/mm³.

Discussion

ITP is a common pediatric disease diagnosed based on a low platelet count, with normal hemoglobin concentration and white blood cells count and absence of underlying conditions such as lymphoproliferative disorders or lupus erythematosus. The annual incidence of ITP is around 5 cases per 100000 children. Purpura and petechia remain the most frequent presenting symptom (83%) followed by epistaxis (25%) [2]. Menorrhagia is a less common symptom. More than 80% of children with acute ITP do not have significant bleeding symptoms and can be managed without specific therapy directed at raising the platelet count [3].

A detailed history, physical examination and workup should be performed as ITP is a diagnosis of exclusion. Differential diagnosis includes disseminated intravascular coagulation (DIC) where fibrinogen will be decreased and d-Dimer, PT and PTT will be elevated; thrombotic thrombocytopenic purpura (TTP) or hemolytic uremic syndrome (HUS) where lactate dehydrogenase (LDH), bilirubin, blood urea nitrogen and creatinine levels are elevated [4]. Other autoimmune diseases associated with thrombocytopenia should be considered, particularly systemic lupus erythematosus (SLE) and antiphospholipid syndrome. Positive ANA is common in children who have ITP so it warrants a more specific test such as an anti-double-stranded DNA (ds-DNA) if a diagnosis of SLE-associated ITP is suspected [5]. Also a high titer of ANA does not predict a high risk of developing SLE in the future, however it may be an indicator of chronicity of ITP [6,7].

In our case, the diagnosis of Immune thrombocytopenic purpura (ITP) was made after other causes were ruled out: DIC (normal fibrinogen, d-Dimer, PT/PTT), TTP or HUS (no evidence of hemolysis: no schistocytes, normal Bilirubin, normal LDH, normal BUN/creatinine), von willebrand disease (normal panel), malignancy (normal electrolytes, LDH, WBC, normal abdominal and pelvic ultrasound), and SLE (normal ANA, ds-DNA). One month after discharge she had a repeated episode of thrombocytopenia requiring admission with IVIG infusion. She was followed by the pediatric hematologist who recommended a bone marrow biopsy that showed normal results and subsequently she was started on steroids.

Conclusion

ITP is a diagnosis of exclusion that should be considered in a patient presenting with thrombocytopenia and menorrhagia, the latter

remaining a rare presenting symptom. Although ITP is typically a benign self-limiting illness, a complete clinical assessment and workup should be performed to rule out other etiologies. The management is not standardized and varies from watchful waiting to pharmacologic intervention depending on patient's condition. The risk of serious bleeding is small regardless of whether pharmacologic treatment is administered.

Conflict of Interests

The authors declare no conflict of interests regarding the publication of this paper.

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