CASE REPORT

Immune Thrombocytopenic Purpura Secondary to Carcinoma Tongue: A Rare Case Presentation

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Abstract

Immune thrombocytopenic purpura (ITP) secondary to carcinoma tongue, is a relatively rare manifestation. An association of ITP with lymphoproliferative disorder comprises about 30% of cases of secondary ITP. A clinical correlation between ITP and carcinoma tongue was never reported before.

Case description: A 48-year-old female with infiltrating squamous cell carcinoma tongue was admitted with isolated severe thrombocytopenia, without signs of active bleeding. She was treated conservatively and discharged. Then again after 15 days, she was readmitted with thrombocytopenia. Bone marrow examination showed megakaryocytic hyperplasia with normal morphology of erythroid and myeloid series with no evidence of infiltration of bone marrow by tumor cells. Finally, the diagnosis of ITP related to carcinoma tongue was reached.

Conclusion: Immune thrombocytopenic purpura is mostly primary but it can occur secondary to autoimmune disorders, infections, such as HIV, Hepatitis C, *H. pylori*, lymphoid neoplasms and occasionally solid tumors. This patient is an example of ITP secondary to a solid tumor with a clinical course concomitant to the course of carcinoma tongue. This case supports the relationship between carcinoma tongue and the immune disease.

Keywords: Carcinoma tongue, Case report, Immune thrombocytopenic purpura, Thrombocytopenia.

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Introduction

Immune thrombocytopenic purpura (ITP) is a relatively rare manifestation in a case of carcinoma tongue. Sophie et al. in 2019 reported a case of immune thrombocytopenia which is secondary to breast cancer.[1] Peffault de Latur et al. in 2004 published a single-center series of 10 cases which shows association between ITP and breast cancer.[2] An association of ITP with lymphoproliferative disorder comprises about 30% of cases of secondary ITP.[3] A clinical correlation between ITP and carcinoma tongue was never reported before.

Case Description

A 48-year-old female with infiltrating squamous cell carcinoma tongue was admitted with isolated severe thrombocytopenia, without signs of active bleeding. She was treated conservatively and discharged. Then again after 15 days, she was readmitted with thrombocytopenia. Her comorbid conditions were hypertension and hypothyroidism. Complete blood count showed thrombocytopenia (50000/cu mm) with normocytic normochromic anemia and normal leucocyte count. The platelet count further reduced to 8000/cu mm. Renal and liver function tests were within normal limits. Serology for HIV, Hepatitis B, Hepatitis C were non-reactive. Serology for Epstein-Barr virus and Cytomegalovirus were negative. ANA negative. Initial investigations revealed Vitamin B12 deficiency (Vitamin B12:148 pg/mol). She was treated with methylcobalamin and folic acid, but there was no improvement. Bone marrow examination showed megakaryocytic hyperplasia with normal morphology of erythroid and myeloid series with no evidence of infiltration of bone marrow by tumor cells.

Immune thrombocytopenic purpura is a diagnosis of exclusion. Among the other causes of thrombocytopenia like hematological malignancies or infiltration of bone marrow by cancer cells were ruled out by bone marrow biopsy. Autoimmune or viral causes were excluded by laboratory work-up. Finally, the diagnosis of ITP related to carcinoma tongue was reached. Patient received pulse therapy of methylprednisolone for 3 days. Post-methylprednisolone pulse therapy, her platelet count raised to 1.8 L/cu mm. It was followed by oral steroid therapy with dosage of 1 mg/kg/day. She was followed up after 1 month, that time her platelet count raised to 2.2 L/cu mm.

Discussion

In ITP, there is immune-mediated destruction of platelets and inhibition of platelet release from megakaryocytes. ITP, an acquired disorder, is mostly primary but it can occur secondary to autoimmune disorders, infections, such as HIV, Hepatitis C, *H. pylori*, lymphoid neoplasms and in some cases of solid tumors.[4,5] Lung and breast cancers are most commonly reported to be associated with ITP.[5]

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This patient is an example, where ITP occurred secondary to a solid tumor (carcinoma tongue) with clinical course concomitant to the course of malignancy. Her blood picture was normal when she was diagnosed with infiltrating squamous cell carcinoma. She presented with ITP within a short span of time after the diagnosis of carcinoma tongue and responded well to the prescribed steroid therapy. Immune thrombocytopenic purpura stayed in remission even after 2 months of follow-up period.

This mentioned case supports the relationship between the immune disease and carcinoma tongue. As chemotherapy was not yet started in this patient, so the effect of chemotherapy in inducing remission of ITP in this case, cannot be commented upon. In due course of time, treatment of the primary tumor will be started and the clinical course of ITP will be followed up. Further research and studies should be conducted in this direction.

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