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Case report

Endometrial carcinoma and paraneoplastic immune thrombocytopenia

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ABSTRACT

Background: Endometrial cancer is the most common gynecological cancer in developed countries. Autoimmune thrombocytopenia is a rare cause of thrombocytopenia in solid tumors and to the best of our knowledge, this is the first case reported associated with clear cell endometrial cancer.
Case report: A 52-year-old woman patient diagnosed with endometrial carcinoma and total abdominal hysterectomy and bilateral salpingo-oophorectomy has been performed. After three cycles of chemotherapy, patient developed grade IV thrombocytopenia, which lasted for one month despite chemotherapy interruption. Bone marrow biopsy and some other tests were performed and she was diagnosed to have autoimmune thrombocytopenia.
Conclusion: Autoimmune thrombocytopenia is a diagnosis of exclusion. Immune-mediated paraneoplastic syndrome include autoimmune thrombocytopenia is well known in hematological cancers, but it is rare in solid tumors. New developments in the treatment of primary cancer by clarification of paraneoplastic syndromes immunology should be considered.

1. Introduction

Endometrial cancer is the most common gynecological cancer in developed countries.[1] Clear cell subtype a accounted for 5% of all endometrial cancers.[2] Immune thrombocytopenic purpura (ITP) estimated incidence is 100 cases per million per year in the United States.[3] A small number of cases with all non-hematological cancers (n = 68) associated with ITP have been reported in English literature. Cases were classified as ITP prior to solid cancer diagnosis, ITP concurrent with cancer and ITP developed after solid cancer.[4]

To the best of our knowledge, we aimed to report the first case of clear cell endometrial cancer with ITP in English literature.

2. Case

In 2010, A 52-year-old woman admitted to hospital with right lower abdominal pain. She underwent a total abdominal hysterectomy and bilateral salpingo-oophorectomy with the diagnosis of endometrial clear cell adenocarcinoma. The pathological stage was stage IIIc and adjuvant chemotherapy as carboplatinum plus paclitaxel was started. One year after from the last chemotherapy, she was diagnosed to have liver metastases and chemotherapy with platinum plus taxane was re-started. Platelet counts of before chemotherapy treatment were normal. After three cycles of chemotherapy, patient showed grade IV thrombocytopenia and at the same time, progression of the disease was detected and liver function tests were normal. Laboratory examination results were as follows: White blood cell count 6200/mL, Ca 125 44 U/mL, hemoglobin 10.7 g/dL, hematocrit 32%, platelet count 2.6×10^3 μL. Prothrombin time and activated partial thromboplastin time normal. There was no hepatosplenomegaly at abdominal ultrasonography. Peripheral blood smear was consistent with the actual thrombocytopenia. It was initially considered to be drug-induced thrombocytopenia and treatment interrupted. However, the grade IV thrombocytopenia continued over one month, and bone marrow biopsy was performed. Bone marrow biopsy findings were normal excepted megakaryocyte hyperplasia. Platelet-Ig G antibody was not performed. The results of all tests including viral hepatitis markers, anti-EBV IgM, anti-CMV IgM, Coombs tests, thyroid function tests, ANA, vitamin B12 and folate, which can induce

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thrombocytopenia, were normal. It was concluded that it was a paraneoplastic syndrome and she was treated with methylprednisolone (1 mg/kg/day). The platelet count rose to normal from 2.4×10^3 μL before treatment in 15 days. Methylprednisolone was stopped after 3 months as the platelet count remained with normal limits. In the 7th month, platelet count was normal, as well.

3. Discussion

ITP is a diagnosis of exclusion. Immune-mediated paraneoplastic syndrome include autoimmune thrombocytopenia (ITP) is a well-known phenomenon in lymphoma.[5,6] It is not uncommon in solid cancers, but the most frequently associated solid cancers are lung or breast cancers. This is the first case report about the patient with ITP associated with endometrial cancer (clear cell adenocarcinoma), to our best of knowledge. In our case, clear cell endometrial cancer, paraneoplastic thrombocytopenia with disease progression were present. After ruling out other causes of thrombocytopenia, thrombocytopenia was thought to be a paraneoplastic immune thrombocytopenia. The observation that ITP and disease progression developed concomitantly, it reasonable to think that thrombocytopenia may be a marker for disease progression, particularly for this patient.

Conflicts of interest

The authors declare that they have no competing interests.

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