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IMMUNE THROMBOCYTOPENIC PURPURA AS A RARE PRESENTATION OF ACUTE MYELOID LEUKEMIA; A CASE REPORT.

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INTRODUCTION

The exact etiology of Acute myeloid leukemia (AML) is unknown. Although “Secondary” AML includes either therapy-related AML or evolving from myelodysplastic syndrome or myeloproliferative neoplasms, but mostly, AML is denovo. Evolution of acute leukemia is multistep process with many mechanisms for this leukemic transformation, Immune thrombocytopenic purpura (ITP) is not one of them.

AIM

We report a case of possible two scenarios whether ITP ended up as AML or AML presented as ITP. Thrombocytopenia preceding AML for months without any suspicious presentation is rarely reported.

METHOD

An observational study from February 2024 till now in Hematology unit, Oncology Center, Mansoura University, Egypt. A 49year old woman presented with ITP and received corticosteroid therapy. Three months later, developed AML.. The patient presented with easy fatigability and history of heavy menstruation in the preceding year. There were no constitutional symptoms. Examination revealed only pallor. The initial full blood count (FBC) showed total leucocytic count {TLC} of 5.500/mm3 with normal differential leucocytic count (DLC), Hemoglobin 5.3 gm/dl, MCV 73 fl, platelet count 30,000/mm3.

All causes for secondary ITP were excluded. Abdominal Ultrasound was normal except for fundal fibroid. Serum ferritin was 10.8 ng/ml and Direct coombs test was negative. Bone marrow aspiration (BMA) was not requested as there was no indication at diagnosis.So diagnosis of ITP was established by exclusion. Treatment was started with oral prednisolone at 60 mg daily and oral iron therapy. After 1 month, platelet count was raised to 70,000/mm3, hemoglobin 6.5 gm/dl and she continued on same medication.

RESULTS

After about 3 months of therapy, she presented with mild epistaxis. Her FBC then showed a TLC: 87,000/ mm3, Hemoglobin 8.1, MCV 83 fl and platelets 5000/mm3. Examination showed moderate splenomegaly and multiple ecchymosis all over the body. DLC showed blasts 62%. BMA showed no dysplastic features. Flow cytometry result was AML (M1-M2) with aberrant expression of CD4, CD99. She was started on 7+3 regimen on May 22th 2024.

CONCLUSIONS

This case report emphasizes the importance of close monitoring and better diagnostic procedures including BMA for all ITP cases even if there are no atypical clinical or hematological features at diagnosis.

REFERENCES

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