Acute megakaryoblastic leukemia (AML-M7)

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Acute megakaryoblastic leukemia (AML-M7) is a rare type of acute myeloid leukemia (AML) evolving from primitive megakaryoblasts. It accounts for 1.2% of newly diagnosed AML by Eastern Cooperative Oncology Group (ECOG) trials between 1984 and 1997. Patients may present with a broad variety of symptoms including low-grade fever, easy bruising and life-threatening conditions. We report a rare case of AML-M7 in a 19-year-old lady who presented with weakness and fatigue. She was diagnosed as a case of AML-M7 on the basis of peripheral blood finding, bone marrow examination report, radiological findings and immunophenotyping. Review of peripheral blood film showed immature mononuclear cells with cytoplasmic blebs. There were giant forms of platelet on the film. The bone marrow imprint showed increased immature mononuclear cells with abundant basophilic cytoplasm containing vacuoles and hyperchromatic and pleomorphic nuclei, some have cytoplasmic blebs, constituting over 90% of nucleated cells. Overall picture was in keeping with acute myeloblastic leukemia most likely acute megakaryoblastic leukemia (AML-M7) which was confirmed by immunophenotyping of peripheral blood with positivity for CD33, CD41 and CD61. X-rays of tibia and fibula showed osteosclerosis in our patient which is in line with osteosclerotic lesions described in few case reports. To our knowledge, this is the first such case in the literature. The lesson here is never say “never” and that proficiency in morphologic diagnosis remains the window, through which uncommon diagnosis can be confirmed by molecular technology particularly in resource-limited environment.

Biography

Ojo Omotola Toyin is a Medical Doctor with Fellowship of Post-graduate Medical College of Nigeria in the Faculty of Pathology. She has obtained her MSc in Hematology from University of Ibadan, Nigeria. She is a Consultant Hematologist with Olabisi Onabanjo University Teaching Hospital, Sagamu, Ogun State, Nigeria. She has published more than 10 papers in reputable journals and she is an Editorial Board Member of Annals of Medicine.

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