LEARNING OBJECTIVES

- Recognize atypical presentations of AML
- Understand typical presentation of Acute Myelogenous Leukemia (AML)
- Understand diagnosis of AML.

CASE PRESENTATION

37 year old man presented to ED complaining of shortness of breath and midsternal chest pain for 1 week after lifting weights. A bedside Echo in the ED showed no effusion. His EKG showed ST elevations in anterior and inferior leads and PR interval depression (Fig 1). His troponins were negative. He was diagnosed with pericarditis and discharged home with NSAIDS.

He returned two days later complaining of sharp, sternal chest pain that was not tender to palpation and worsening shortness of breath. Pain was worse when he slept on his side, and relieved by ibuprofen. Echo showed small to moderate pericardial effusion.

ROS: positive for subjective fevers, fatigue/malaise, non-bloody vomiting and 10lb wt. loss. Negative for URI symptoms, recent travel, TB, HIV.

PE: Vitals were unremarkable. Physical exam revealed no JVD or rubs. Pulsus paradoxus was negative. No gingival hyperplasia

DIAGNOSTIC STUDIES

CBC: WBC of 25.9, Hgb 9.1, PLT of 238, MCV of 102. Differential: Monocytes 48(H), BLASTS 2(L), Myelocytes 1(H).

BMP: notable for Cr of 1.64 ESR: >120

Bone Marrow Aspiration - mononuclear large atypical immature cells on smear and aspirate (Fig 2).

Bone Marrow Biopsy - monotonous population of immature myeloid cells (Fig 3).

Flow Cytometry - a population of immature cells (90%) with monocyte differentiation with markers indicating monocytic AML (Fig. 4).

Karyotype - Trisomy 11

REFERENCES


