

**Abstract:**

Severe headache is a commonly reported symptom with numerous underlying etiologies, but it is rare for acute myeloid leukemia to manifest with headache as the primary symptom. Here, we present the case of a 45-year-old woman who presented with an acute and severe headache accompanied by bilateral retinal hemorrhages. The patient exhibited marked hyperleukocytosis and was subsequently diagnosed with acute myelomonocytic leukemia. The case was further complicated by leukostasis and disseminated intravascular coagulation (DIC), leading to severe cerebral edema, multiple intracranial hemorrhages, brainstem herniation, and ultimately, her demise. We believe that this case report will highlight the importance of considering acute leukemia as a rare cause in the differential diagnosis of acute headache. Although the prognosis for AML remains poor, early diagnosis and prompt treatment may potentially improve outcomes for affected patients.