Chemotherapeutic trial for acute leukemia in Iraq

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Letter to the Editor

In Iraq, the diagnosis of acute leukemia is essentially based on clinical presentation and the basic hematological investigations including complete blood count and blood smear morphology, after which a bone marrow aspirate and sometimes a trephine biopsy will follow. These measures usually permit the diagnosis of most varieties of acute leukemias with a very acceptable level of reliability. However, there is still a small percentage of cases that can never be diagnosed based only on morphological features.

Moreover, here in Iraq, there is absence of genetic analysis, apart from limited molecular by genetics polymerase chain reaction (PCR) only for CML BCR-ABL1 oncogene. There is also an absence of flow cytometry and immunophenotyping panels, apart from individual, never in complete panels and inconsistently available/few CD markers study using immunohistochemistry.

Therefore, a chemotherapeutic trial for those who can not afford to seek a more precise diagnosis with genetic study and lineage specification outside this country is a realistic option, as the response to treatment could be a very useful confirmation of the provisional diagnosis. The two examples already faced are AML-M3v diagnosed provisionally only by morphology but with a dramatic response to all-trans-retinoic acid (ATRA) trial, confirming the diagnosis [1] and a few cases of morphologically undifferentiated acute leukemia in which the induction therapy for ALL is tried first. If the patient responds, then a diagnosis of ALL can be deduced; if not, the regimen should be shifted to chemotherapy of AML.

References