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	🔴 **Master** ⊙ **PhD**
Thesis Title	**Survey of Adult de novo Acute Myeloid Leukemia cases reported in the Medical City in Baghdad through the years (2005-2011)**
Year	**2013**

Abstract

Background:

Acute myeloid Leukemia is defined as the presence of over 20 % of myeloid blast cells in the bone marrow at clinical presentation. It is divided to eight subtypes (M0 - M7) according to FAB classification.

Aim of study:

This study was applied

1- To monitor the possible change in distribution pattern of AML subtypes in Iraq over the period 2005 – 2011.

2- To identify the abnormalities in complete blood count which occurs in acute myeloid leukemia which occur at presentation.

Patients and Methods

The study reviewed five hundred eighty one (581) cases of adult acute leukemic patients with different ages, in both sexes who were admitted to Baghdad Teaching Hospital / Medical City, during the period from January of 2005 to the December of 2011.

Only (468) cases were included in this study and (113) cases were excluded due to the following causes; relapse, slide review, age <15 years, unclassified AML, missing information

and previous hemat-ological disorder.

Thus the (468) patients were studied and classified according to French-American- British classification to eight subtypes (M0 – M7). For each patient, full history and clinical examination were done, with the following investigations, complete blood counts (packed cell volume, white blood cell count and platelet count), blood film (white blood cell differential) and BM aspirate. Blasts were counted in the peripheral blood and marrow. Certain special stains were used to facilitate the typing of acute myeloid leukemia (Sudan Black B and PAS).

Results:

Of the total, 92 cases (19.7%) of patients had AML M1, 123 cases (26.3%) M2, 132 cases (28.2%) M3, 37 cases (7.9%) M4, 70 cases (15%) M5, 9 cases (1.9%) M6, and 5 cases(1%) M7. There was a significant association between types of leukemia with age, being more common in younger ages (15-24 y). Male to female ratio was 1:1.05.

The complete blood counts showed; Anemia was evident in most cases (95.7%) where PCV was less than 30% in 84.2% (394/468).

Neutropenia in 59.8% of cases. Thrombocytopenia (<150 × 10^9/L) was detected in 94.7% of acute myeloid leukemia.

Blasts in the peripheral blood were observed in 78 % of acute myeloid leukemia.

Auer rods were detected in about 32.3% of acute myeloid leukemia cases. Sudan Black B was positive in 85.6 % of cases.

Over the seven years of this study 20.5% of AML cases were diagnosed in the year 2011.

The variations in white blood cell count, peripheral blasts count, packed cell volume and platelets count that observed in this study were similar to that reported earlier in Iraq.

 Conclusion:

1. There is a remarkable increase in the incidence of AML showing a peak in the last year of this study (2011).
2. Acute myeloid leukemia is more common in young adults, and the incidence decreases with age in contrast to literatures.

	3. AML M3 and M2 subtypes are the most common subtypes.
	4. There is high risk of severe infections in more than one–third of patients. Liability to bleeding is expected in more than two-third of patients
	5. Not all cases of acute leukemia showed blasts in peripheral blood.