



Overlapping B cell Non Hodgkin Lymphoma with myeloid malignancies : Case series.

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Background

Non Hodgkin Lymphoma is considered the most common hematologic malignancy. Our understanding of the molecular basis of this malignancy is improving day after another which may explain the reason behind increased incidence of other hematologic malignancy regardless of the treatment given. Here we highlight a number of cases with such an association.

Objective

The main objective of this study is to highlight the possible co-incidence of myeloid malignancy with mature B cell neoplasm. The main outcome is to report the possible occurrence of this confusing association and to study the biology behind it.

PATIENTS & METHODS

The case series included 4 patients who were with mature B cell neoplasms and developed myeloid malignancy at the time of first presentation without giving any history of previous chemotherapy or radiotherapy exposure.

RESULTS

We have 4 cases included in this series.

Case 1: is a 58 year old male who was diagnosed with chronic myeloid leukemia and showed accelerated profile. His CBC film showed peripheral leukocytosis which was mistaken initially as a sing of acceleration, however the cell morphology was suspicious. Flowcytometric study showed mantle cells phenotype. His cytogenetics showed t(9,11) and extra-Philadelphia chromosome. This patient received high dose Cytarabine with tyrosine kinase inhibitors and should good response.

Case 2: A 47 year old lady who were diagnosed with chronic lymphocytic leukemia (CLL) and put under watchful waiting. Then she developed pancytopenia and appearance of aggressive B symptoms. Bone marrow examination and flowcytometry confirmed the presence of two clones of cells; one of CLL phenotype and the other of myelomonocytic line and she had normal karyotyping. She received FLAG protocol and went into remission.

Case 3 : A 32 year old man presented with enlarged cervical LNs and peripheral leukocytosis. Excisional LN biopsy confirmed follicular NHL (figures 1-4) however promyelocytes were seen in his peripheral (figures 5-9).

Further PML-RARA mutation was detected with FISH confirming the diagnosis of coinciding acute promyelocytic leukemia. Unfortunately this patient died during chemotherapy induction from sepsis.

Case 4: A 56 year old man presented with bleeding and anemia. Bone marrow aspiration showed acute myeloid leukemia with dysplastic features. Further trephine biopsy showed CLL clone. He receive induction chemotherapy and died with sepsis.

Figure 1: LN H&E shows nodular pattern of growth

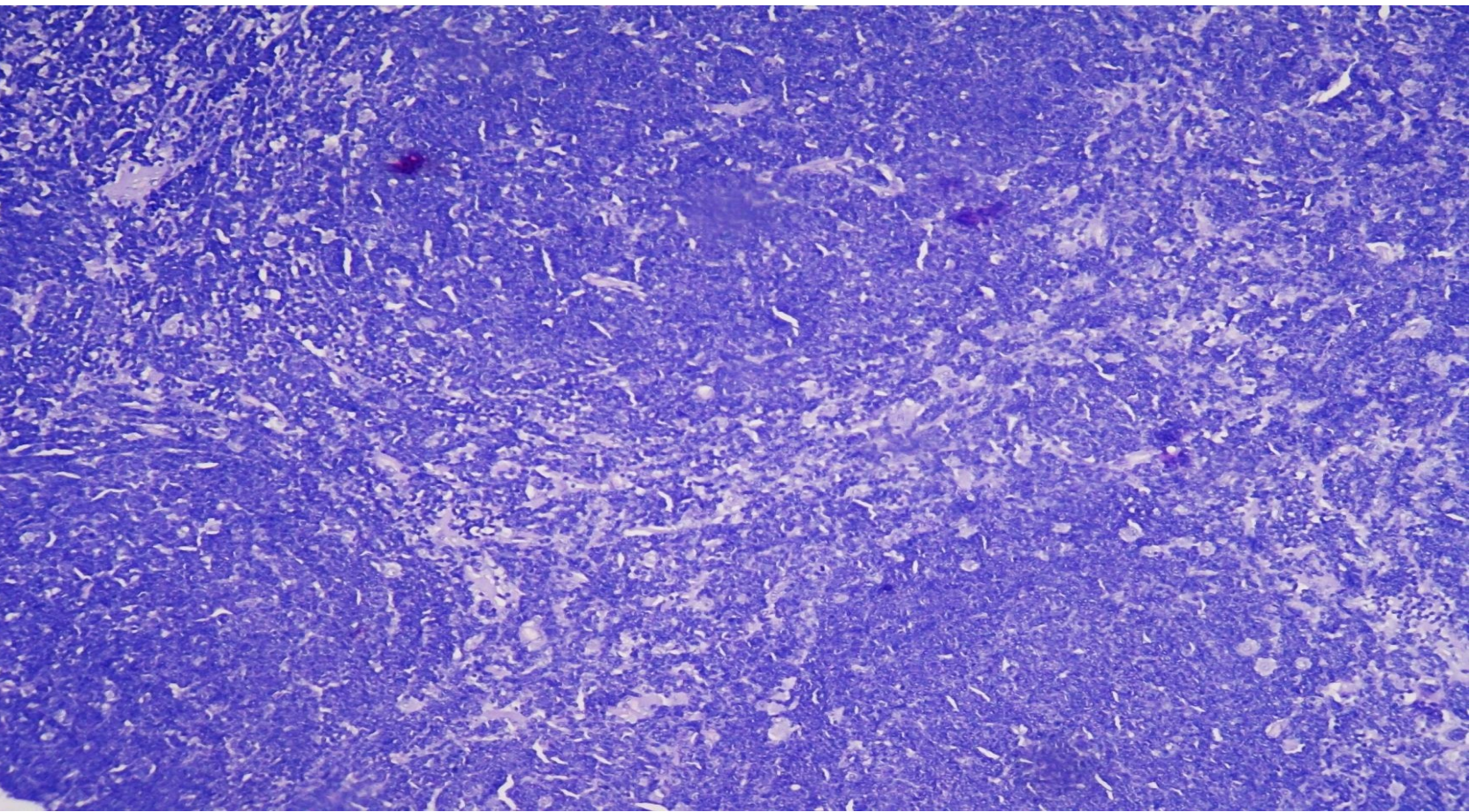


Figure 2: CD20



Figure 3: CD20



Figure 4: BCL 2

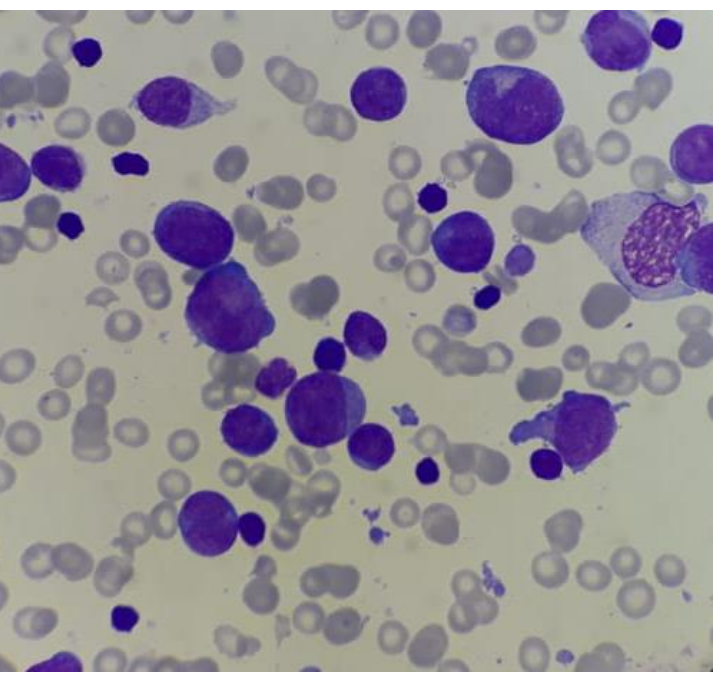


Figure 5: PB film

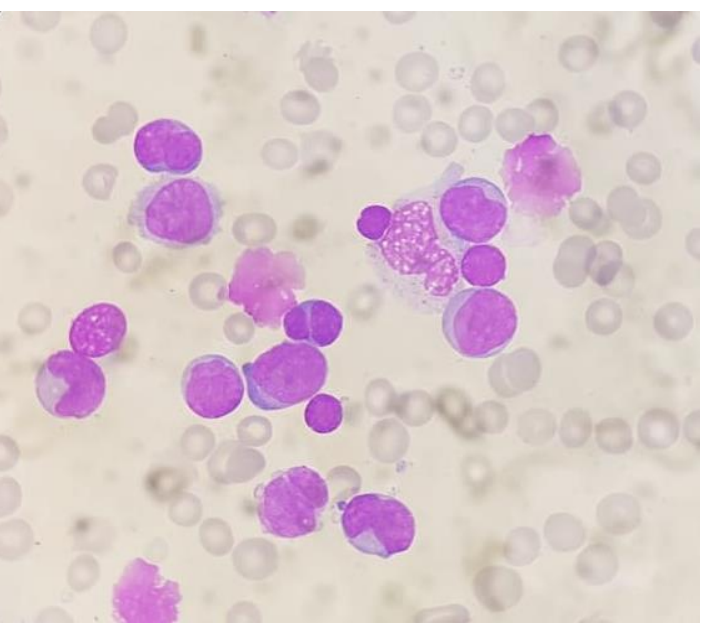


Figure 7: PB film

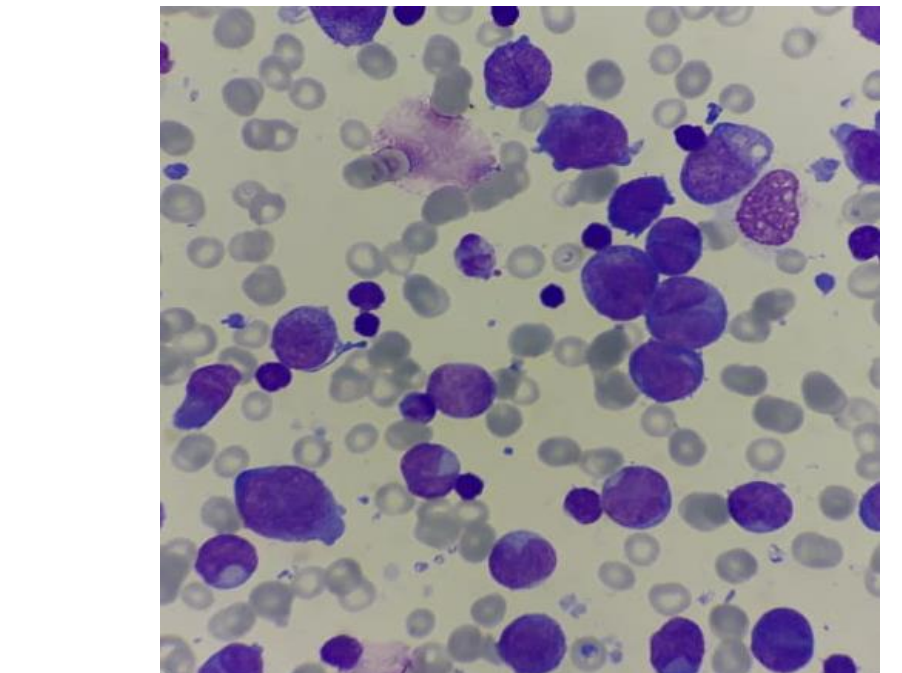
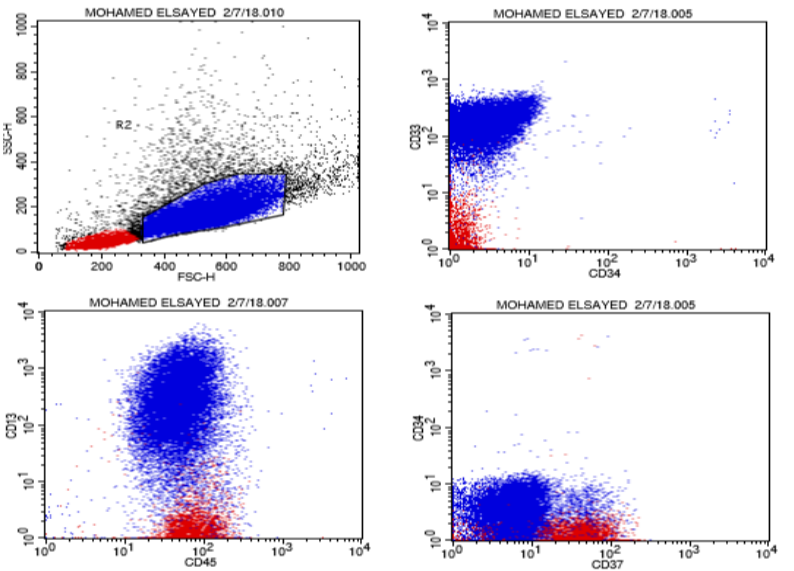


Figure 6: PB film

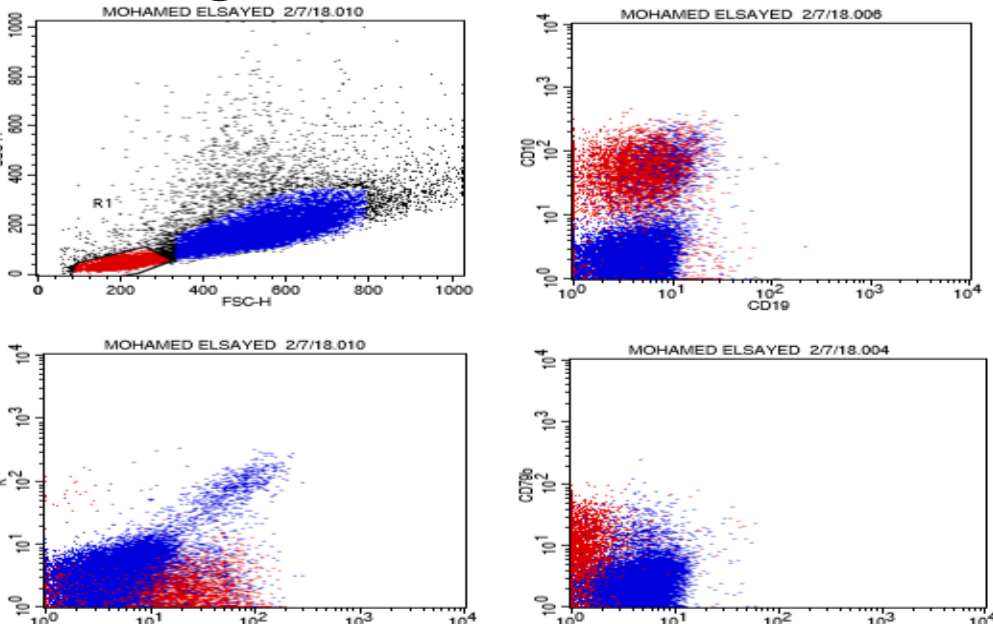


Figure 8: Clonal B cell population by flowcytometry

Figure 9: Clonal promyelocytic cell population by flowcytometry

Discussion

This overlap of hematologic malignancies may suggest that there is a common molecular aberration behind them. Testing for TP53 mutations should have been done together with germ line mutations.

References

- 1.Acute promyelocytic leukemia in a patient with chronic lymphocytic leukemia—A case report. Hematology/oncology and stem cell therapy.
- 2.Familial cancers associated with subtypes of leukemia and non-Hodgkin's lymphoma. Leukemia research.