DIAGNOSTIC ACCURACY OF MORPHOLOGY IN MATURE B CELL NEOPLASMS, CORRELATION WITH IMMUNOPHENOTYPING

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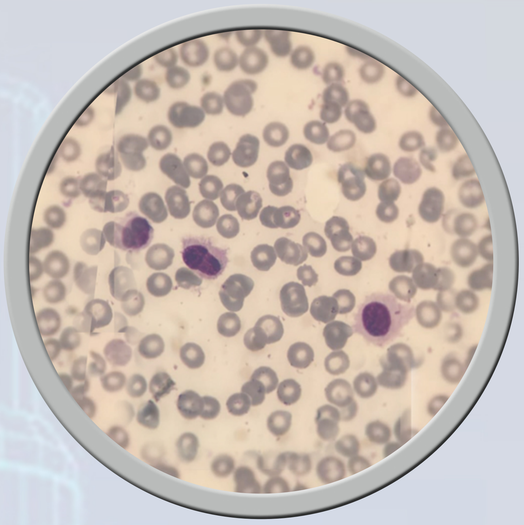
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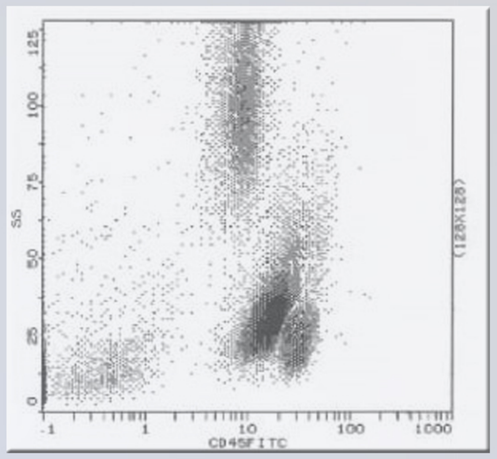
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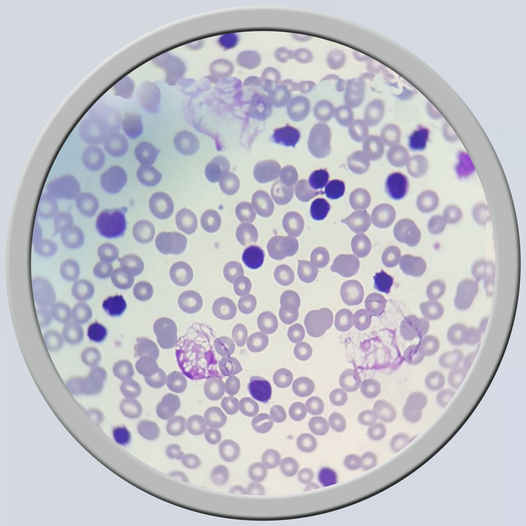
• BACKGROUND

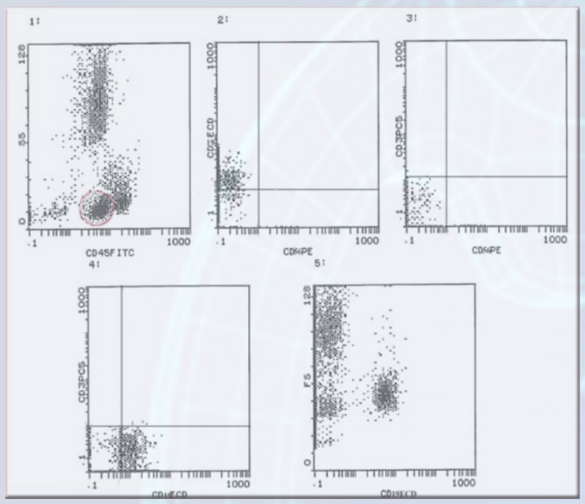
Mature B cell neoplasms consist of entities arising from mature B lymphocytes which involve primarily the blood, bone marrow and lymphoid organs. The value of these investigations is discussed to emphasize the importance of morphology as frontline diagnostic test and the correlation with flow cytometric immunophenotyping (FCI).





Flow cytometry CD 45 versus side scatter (SS) in HCL cell differentiation





Flow cytometry in LLC cell differentiation

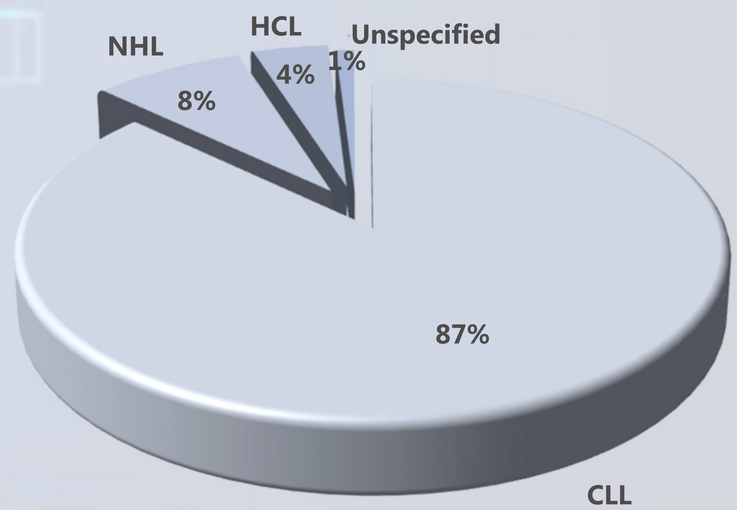
• OBJECTIVE

To emphasize the importance of conventional morphology as frontline test supported by (FCI) in diagnosis and separation of mature B cell neoplasms.

• METHODS

We reviewed retrospectively the marrow smear and FCI of 195 patients with mature B cell neoplasms in a two-year period 2017-2018.

FCI results of 195 patients with mature B cell neoplasms



• RESULTS

170 out of 195 patients showed morphological features of cells typical for chronic lymphocytic leukemia (CLL), (small lymphocytes, clumped chromatin, scanty cytoplasm) in all cases, compatible with FCI. 7 out of 195 patients have morphological features of circulating cells of hairy cell leukemia (HCL) (small-to-medium lymphocytes, eccentric round-to-oval nucleus, scanty cytoplasm with hair-like projections), compatible with FCI. 18 out of 195 pa tients the morphological features of circulating cells are lymphoma cells (large cells with a high N:C ratio, a non-cleaved nucleus and prominent nucleoli, or smaller cells with more basophilic cytoplasm and a cleaved nucleus). 16 out of 18 cases have the FCI compatible with non Hodgkin lymphoma (NHL), and 2 cases are unspecified by FCI.

• CONCLUSION

In this study, conventional morphology and FCI are 100 % compatible in cases of CLL and HCL and 88,9 % compatible in cases with NHL.