

Diagnostic relation between microscopy and flow cytometry in Chrnic Lymphoproliferative Disease. An experience of 1344 cases in one center in Southern Brazil

Siqueira C, Inoue A.P.

Abstract

We decided to check our diagnostic optical microscope comparing what we see as a first impression and the final diagnose after flow cytometry. We analyzed 1344 cases that our first impression at the optical microscope (OM) was about a C.L.L.. patient. We established fiour inclusion criteria for this. Age more than 50 years, leucocyte count more than 5.000 mm3, the presence of gumprechth bodies and the presence of giant platelets and/or platelets aggregation

Background

The actual diagnosis of C.L.L. today have a very strong definition based in the flow cytometry determinations. In our country we don't have many centers that can use this lab test in a routine basis. With this in mind we decided to check if a simple OM diagnostic procedure could give a information for doctors that can be useful to indicate a possible presence of a C.L.L. .

Objective

The objective of the study was to evaluate our O.M. diagnosis in C.L.L. and check if it would be helpful for doctors as a primary suspected information

Materials & Methods

We studied 1344 cases during one year in a 10000 daily routine white blood cell count that that we have in our lab. We decided by O.M that were probably C.L.L. cases based in the included criteria listed already. After looking the final result by flow cytometry we have a very good final approach of what we were seen at the OM. We had a 92% positive diagnosis between flow cytometry and our Om. This means that if you have a good microscopy team you can help doctors to use more flow cytometry as a tool for a good diagnosis.

Discussion

Our results are in accordance with similar studies available in the literature. According to quality assurance controls surveys from Canada and U.K. , neoplastic misclassification of reactive specimens occurs in about 10% to 26% of cases while up to 21% of neoplastic cases are assigned as reactive..

Summary

The aim of this study is to show how a good team in microscopy could help doctors to use more and more flow cytometry as a good marker of C.L.L. based in some very simple information's of a with blood cell slide

References

1 – Union for International Cancer control 2014. C.L.L. 2014. Review of cancer medicines on the WHO list od essentials medicine.