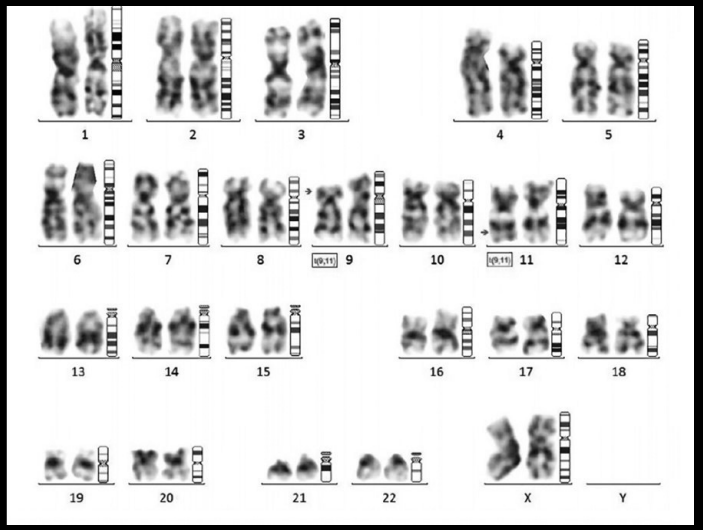
Cytogenetics: Subsequently, a conventional karyotyping of the bone marrow sample performed revealed reciprocal translocation involving t(9;11)(p22;q23) in 20% of all the metaphases studied. We retrospectively reviewed the peripheral blood morphology, however, could not find any blast, based on morphologic parameters. Patient is hemodynamically stable and the performance status is good.Surprisingly patient had an indolent clinical course of disease, which is rare in acute leukemias associated with MLL gene translocations. After the diagnosis of this rare condition she deferred further treatment. She occasionally gets packed red blood cell transfusions and is on regular follow up.



Cytogenetics Analysis

FINAL DIAGNOSIS:

Adult B-Acute Lymphoblastic Leukemia (ALL) with MLL gene rearrangement.

DISCUSSION

Adult acute lymphoblastic leukemia is a heterogeneous group of hematopoietic neoplasms. B-ALLs are mostly characterized by FAB-L1 or L2 morphology, surface immunoglobulin (sIg) negativity, and are classified as early precursor B-ALL (Pro-B), common B-ALL, and pre-B-ALL subtypes. Pro-B-ALL are commonly CD19, Tdt, and CD34 positive and CD10 negative and common B-ALL subtypes are positive for CD10. These B-ALL phenotypes comprise ~90% of all B-ALLs. The less common mature B-ALL subtype is characterized by FAB-L3 morphology, sIg positivity, and is usually associated with MYC gene rearrangements and this represents the leukemic phase of a Burkitt's lymphoma. However, rare cases of B-ALL with non-FAB-L3 morphology and without MYC rearrangements have also been reported in both adult and pediatric patients as mature B-ALL. These cases may or may not express TdT and CD34, but uniformly express sIg to some extent.