

# **EXTREME THROMBOCYTOSIS AND BASOPHILIA IN A CASE OF CHRONIC MYELOID LEUKEMIA.**

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Chronic myeloid leukemia (CML) is a hematopoietic malignancy originating from transformation of a pluripotent haematopoietic cell.

CML was the first malignant disease found to be consistently associated with a specific cytogenetic abnormality, the Philadelphia chromosome, resulting in the formation of the BCR-ABL fusion oncogene.

The most common feature of CML is an elevated WBC count usually  $>25.00 \times 10^3/\mu\text{l}$  and frequently  $>100,00 \times 10^3/\mu\text{l}$ , the WBC differential usually shows granulocytes in all stages of maturation from blasts to mature morphologically normal granulocytes.

The platelet count is elevated in 30 – 50% of patients and is higher than  $1000,00 \times 10^3/\mu\text{l}$  in a small percentage of patients with CML. Excessive thrombocytosis like that are seen in essential thrombocythemia (ET) are uncommon (described as Ph1 positive ET in the past).

Basophils are constantly elevated but only 10 – 15% of patients have  $\geq 7\%$  basophils in the peripheral blood. In contrast to mastocytosis hyperhistaminemia is uncommon

Elevated basophil count is a treasure of accelerated phase but excessive basophilia is a very rare condition at diagnosis and is suggestive for basophilic leukemia. Extreme basophilia at presentation impose a differential diagnosis with rare chronic or acute basophilic leukemia.

We present the case of 30 years old female who was referred to our department for anaemia syndrome. Clinical: pallor, no organomegalies. Blood count cell showed: anaemia, Hb= 10 g/dl, leucocytosis  $66,00 \times 10^3/\mu\text{l}$ , extreme thrombocytosis  $3600,00 \times 10^3/\mu\text{l}$  and on peripheral blood surprising an elevated percent of 66% of mature basophils, the lack of immature granulocytes. JAK2V617F mutation is not detected. BCR-ABL transcripts: major molecular response, cytogenetic analysis: 100% presence of Ph chromosome. With the diagnosis of MCL can start a treatment with Hydroxiurea, then dasatinib 100 mg/day. The result is a spectacular one, a normal blood count cell after one month.

Presentation with extreme thrombocytosis and basophilia in MCL is exceptional rare representing a diagnosis provocation: MCL, ET or basophilic leukemia.