

Chronic Myeloid leukemia

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CML

- Definition:

One of the myeloproliferative disorders.

It is chch by Clonal proliferation of meyloid cells due to abnormal stem cell.

- Incidence:

<20% of all leukemias

Middle age

>95% of patients have cells with abnormal chromosome(ph chr)

males>females

Age 40-60

- Clinical picture:

Wt loss, Abdominal discomfort, pain, bruising, epistaxis.

Pallor, dyspnea, tachycardia, splenomegaly.

- Laboratory findings:

-leucocytosis $>50 \times 10^9$

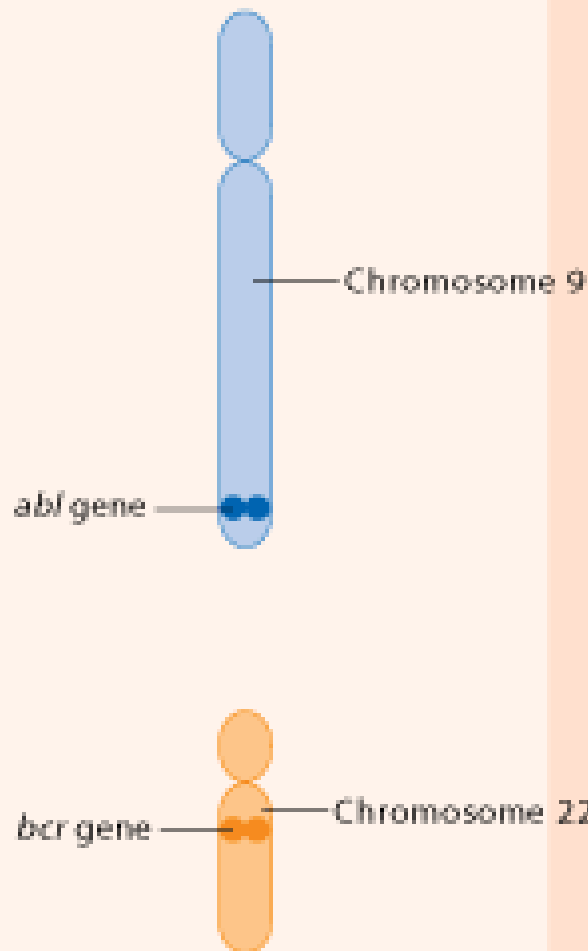
A complete spectrum of myeloid cells, peak of segment and myelo.

Increased basophils, NN anaemia, Plt count may be increased

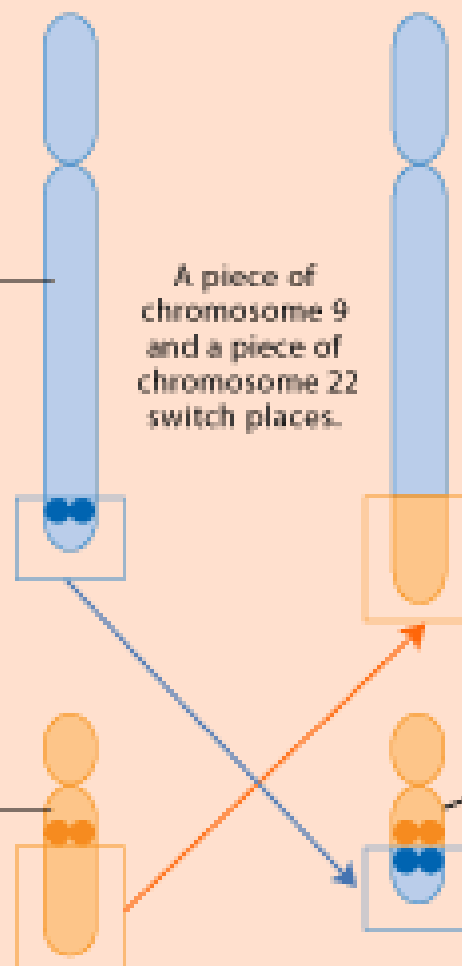
- Nap score is low (N20-100)
- BM is hypercellular with granulopoietic predominance.
- Philadelphia chromosome

DEVELOPMENT OF PHILADELPHIA CHROMOSOME

Before translocation

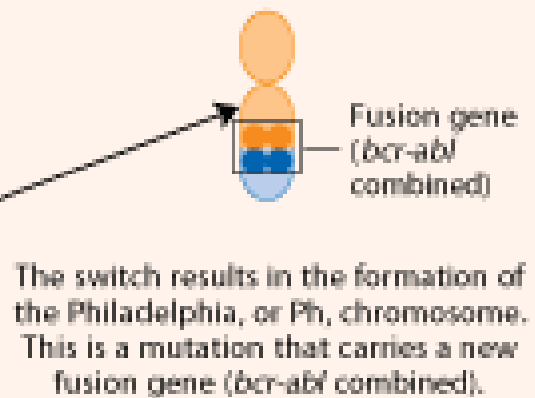


During translocation



After translocation

Philadelphia (Ph) chromosome



Accelerated phase

- Rapid leucocyte doubling time
- Basophils up to 20%
- An, Thrombocytopenia or thrombocytosis >1m
- Blast up to 12%
- >20%blast +promyelo
- New chromosomal abnormality

Acute Phase

- Blasts >15%
- Basophil >20%
- Marrow blasts>10%
- Difficult to control WBC count
- Enlarged spleen
- Thrombocytopenia

Variants of CML

- Ph-ve CML:

Wbc and plt not high

No basophilia

Increased mono

Poor response to ttt

- Juvenile CML:

HSM, Lymphopathy, eczema, rashes, monocytes inc.

NAP normal

Chronic neutrophilic leukemia

- Eosinophilic leukemia:

HSM, rashes, wt loss

-eosinophils with abn forms degranulated, vacuolated. Immature eso myeloeso and juv eso.