t(5;10)(q33;q21)

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Clinics and pathology

**Disease**
Myeloid lineage.

**Phenotype/cell stem origin**
Atypical chronic myeloid leukemia (CML), Philadelphia negative, bcr-abl negative with eosinophilia.

**Epidemiology**
Only two cases available.

**Clinics**
Massive splenomegaly in one case; some clinical features of accelerated CML.

**Cytology**
Peripheral blood leukoerythroblastosis; bone marrow granulocytic hyperplasia, bone marrow fibrosis (grade III-IV reticulin), dry tap

**Pathology**
Extramedullary hemopoiesis in the spleen.

**Treatment**
Control of disease by hydroxyurea in both cases.

Genes involved and proteins

**PDGFRB** (Platelet Derived Growth Factor Receptor Beta)
Location: 5q33
Protein
Transmembrane and tyrosine kinase domains.

**H4(D10S170)**
Location: 10q21
Protein
Carboxyterminal putative SH3 binding site; cytoskeletal protein?

Result of the chromosomal anomaly

**Hybrid gene**
Transcript
H4-PDGFBR chimeric RNA constantly present.

References


This article should be referenced as such: