Leukaemia Section
Short Communication

**t(8;14)(q24;q32) in BPDCN**

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**Abstract**

Review on t(8;14)(q24;q32) in BPDCN, with data on clinics

**Keywords**

Chromosome 8; chromosome 14; Blastic plasmacytoid dendritic cell neoplasm

**Clinics and pathology**

**Disease**

Blastic plasmacytoid dendritic cell neoplasm (BPDCN)

**Note**

BPDCN has been known with various names, including agranular CD4+ natural killer (NK) leukemia, CD4+/CD56+ hematodermic neoplasm, and blastic NK lymphoma. BPDCN malignant cells are derived from the precursors of plasmacytoid dendritic cells. It most commonly involves the skin. BPDCN is an aggressive neoplasm. BPDCN is often associated with a complex karyotype (review in Meloni-Ehrig 2017).

**Epidemiology**

In a series of 41 patients with BPDCN, five had a MYC rearrangement confirmed by FISH, one had a t(X:8)(q24;q24), one had a t(3:8)(p25;q24), two had a t(6;8)(p21;q24) MYC/SUPT3H, and one had a t(8;14)(q24;q32) (Boddu et al., 2018).

**Clinics**

The patient with a t(8;14)(q24;q32) was a 55 year-old male patient with skin involvement. He did not respond to treatment and died 12 months after diagnosis.

**Cytogenetics**

The t(8;14)(q24;q32) was the sole anomaly.

**Genes involved and proteins**

**Note**

The partner gene of MYC is unknown.

**MYC**

**Location**

8q24.21

**DNA/RNA**

MYC is composed of three exons spanning over 4 kb.

**Protein**

MYC is expressed in almost all proliferating cells. It is located predominantly in the nucleus. MYC is a transcriptional regulator, capable to induce or repress the expression of thousands genes. MYC is deregulated in cancer by several different mechanisms: chromosomal translocations, amplifications, point mutations, epigenetic reprogramming, enhanced translation and increased protein stability (review in Mohamed, 2017).

**References**


Mohamed AN. MYC (MYC proto-oncogene, bHLH transcription factor); Atlas Genet Cytogenet Oncol Haematol. in press

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