t(3;6)(q27;q15)
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Clinics and pathology

Disease
Non Hodgkin lymphoma

Clinics
The t(3;6) was found in two cases of follicular lymphoma (Sanger et al., 1987; Sanchez-Izquierdo et al., 2001).

Prognosis
The patient reported by Sanger et al., 1987 was a 83-year-old female patient with a follicular mixed small clived and large cell lymphoma, which evolved to a diffuse mixed small lymphocytic and large cell lymphoma. She experienced persistent disease under treatment, refused further chemotherapy, and died two years after diagnosis.

Cytogenetics

Additional anomalies
A t(14;18)(q32;q21) was found in the 2 cases.

Genes involved and proteins

Note
The partner of BCL6 in this translocation is unknown.

BCL6
Location
3q27.3
Protein
706 amino acids; composed of a NH2-term BTB/POZ domain (amino acids 1-130 (32-99 according to Swiss-Prot) which mediates homodimerization and protein-protein interactions with other corepressors (including HDAC1 and NCOR2/SMRT to constitute a large repressing complex, another transcription repression domain (191-386), PEST sequences (300-417) with a KKYK motif (375-379), and six zinc finger at the C-term (518-541, 546-568, 574-596, 602-624, 630-652, 658-681), responsible for sequence specific DNA binding.

Transcription repressor; recognizes the consensus sequence: TTCCT(A/C)GAA (Albagli-Curiel, 2003).
Role in germinal centers of lymphoid follicles. BCL6 prevents ATM and TP53 to induce apoptosis in response to DNA rearrangements such as somatic hypermutation and class switch recombination. Therefore essential for normal B cell development.

References

This article should be referenced as such: