

del(7q) in non-Hodgkin's lymphoma (NHL)

Clinics and Pathology

- Disease** the frequency of 7q deletions in unselected NHL is less than 5%; an association with splenic marginal zone B-cell lymphomas (MZBCL) was established, with a 20-30% incidence; sensitive molecular genetic studies found a 40% incidence in splenic MZBCL, as against a 7% incidence in other forms of NHL
- Prognosis** there may be an association of 7q- with tumor progression or transformation into a high-grade MZBCL

Cytogenetics

- Cytogenetics** 7q deletions or unbalanced 7q translocations in NHL usually involve a Morphological relatively large segment, usually centered around the 7q22-q32 region
- Cytogenetics** conventional G- or R-banded preparations detect the majority of cases;
- Molecular** however some patients with submicroscopic deletion were detected by FISH or loss-of-heterozygosity studies

Genes involved and Proteins

- Note** the involved gene(s) are unknown; the minimal region of deletion in MZBCL carrying a 7q- chromosome was narrowed down to a 5cM segment defined by the D7S685 and D7S514 markers; homozygous deletion of the D7S685 was reported, suggesting that a tumor suppressor gene relevant to lymphomagenesis may be located in this region; a recurrent 7q21 translocation involving a small 3.6 Kb segment upstream of the cyclin-dependent kinase 6 gene (CDK6), with resultant CDK6 overexpression, was described

External links

- Other** [del\(7q\) in non-Hodgkin's lymphoma database \(NHL\)](#) [Mitelman database \(CGAP - NCBI\)](#)

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