

## Leukaemia Section

### Short Communication

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

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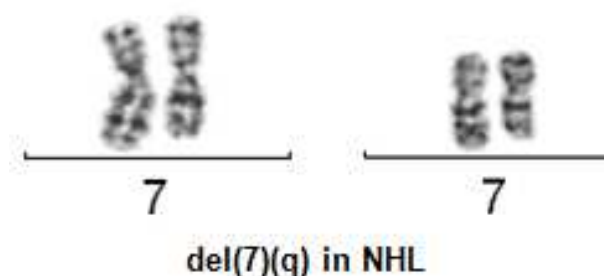
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### Identity



del(7q) in non-Hodgkin's lymphoma (NHL) G- banding -  
Courtesy Melanie Zenger and Claudia Haferlach.

### 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 morphological

7q deletions or unbalanced 7q translocations in NHL

usually involve a relatively large segment, usually centered around the 7q22-q32 region

#### Cytogenetics molecular

conventional G- or R-banded preparations detect the majority of cases; 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

### References

- Oscier DG, Matutes E, Gardiner A, Glide S, Mould S, Brito-Babapulle V, Ellis J, Catovsky D. Cytogenetic studies in splenic lymphoma with villous lymphocytes. *Br J Haematol.* 1993 Nov;85(3):487-91
- Corcoran MM, Mould SJ, Orchard JA, Ibbotson RE, Chapman RM, Boright AP, Platt C, Tsui LC, Scherer SW, Oscier DG. Dysregulation of cyclin dependent kinase 6 expression in splenic marginal zone lymphoma through chromosome 7q translocations. *Oncogene.* 1999 Nov 4;18(46):6271-7
- Mateo M, Mollejo M, Villuendas R, Algara P, Sanchez-Beato M, Martínez P, Piris MA. 7q31-32 allelic loss is a frequent finding in splenic marginal zone lymphoma. *Am J Pathol.* 1999 May;154(5):1583-9

Cuneo A, Bigoni R, Roberti MG, Milani R, Agostini P, Cavazzini F, Minotto C, De Angeli C, Bardi A, Tammiso E, Negrini M, Cavazzini P, Castoldi G. Molecular cytogenetic characterization of marginal zone B-cell lymphoma: correlation with clinicopathologic findings in 14 cases. *Haematologica*. 2001 Jan;86(1):64-70

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