

## Leukaemia Section

### Short Communication

# del(11q) in non-Hodgkin's lymphoma (NHL)

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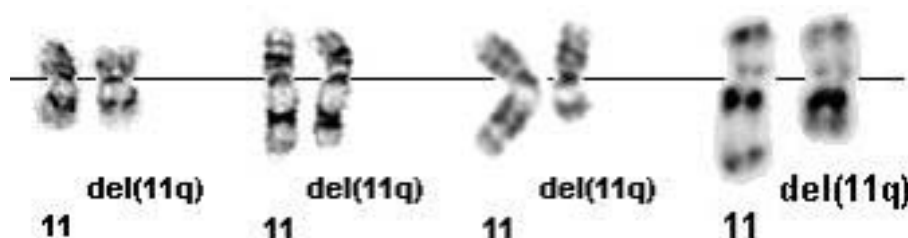
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## Identity



del(11q) G- banding (the 3 left partial karyotypes) - Courtesy Diane H. Norback, Eric B. Johnson, Sara Morrison-Delap UW Cytogenetic Services; R-banding (right) - Editor

## Clinics and pathology

### Disease

The overall incidence in NHL is 4-5%, the highest incidence having been reported in mantle cell lymphoma, where up to 70% of the cases studied by FISH may harbour a cryptic deletion in association with the classical t(11;14) translocation; FISH detects an approximate 10% incidence of 11q deletion among other histologic subsets of B-NHL; among diffuse large B-cell lymphoma the 11q- chromosome shows a preferential association with the immunoblastic variant; sensitive molecular cytogenetic methods may show 50-70% of T-cell prolymphocytic leukemia to carry an 11q deletion involving the ATM gene.

### Prognosis

A possible association between 11q-/ATM- and poor prognosis in B-cell NHL was reported.

## Cytogenetics

### Cytogenetics morphological

The chromosome 11q deletion occurring in NHL most frequently affects the q22-23 bands; the 11q- anomaly occurs as a secondary change in the majority of cases.

### Cytogenetics molecular

Because the size of the deleted segment may be beyond the resolution power of conventional banding analysis, many cases can only be detected by interphase FISH or other genetic methods using probes targeting the 11q22.3-q23.1 region.

## Genes involved and proteins

### Note

The region of minimal deletion was narrowed down to a 2-3 Mb pair segment where the ataxia teleangiectasia (ATM) gene is located; sequencing studies showed mutation in the remaining ATM allele in a significant fraction of cases.

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