

## Abstract

Myelodysplastic neoplasias (MDS) are heterogeneous group of clonal hematopoietic disorders. Chromosome 17 aberrations are one of the rare cytogenetic findings in MDS patients. A cytogenomic analysis of unbalanced aberrations of chromosome 17 was performed in 37 adult patients with primary and secondary MDS. The most common change of chromosome 17 was unbalanced translocations, which occurred with almost all chromosomes. Chromosome 17 aberrations were part of the complex karyotype in 34 patients (91.9%). Eight patients (21.6%) had changes of both homologous chromosomes 17. The difference in overall survival of patients with one and two aberrated chromosomes was not statistically significant. However, a trend towards better survival of patients with a single aberration was observed. Three patients had a clonal gain of chromosome 17 aberration as well as a deletion of the 17p13 region where the *TP53* gene is located. The deletion was confirmed in a total of 27 patients (72.9%), including all patients with secondary MDS, and its gain did not affect overall survival. *TP53* mutation was found in 17 out of 21 (80.9%) examined patients. Of these, 12 had a 17p13 deletion at the same time. Four patients had two mutations and one patient had a mutation together with uniparental disomy 17p. These findings have a very poor prognosis and the median overall survival of the patients was 2 months.