head and neck) and melanomas, cyclin D1 is activated by gene amplification and is associated with poor prognosis. CCND1 overexpression has also been found in 25-50% of multiple myeloma (MM) cases. A molecular classification of MM, named TC classification, stratifies patients into five groups (TC1-TC5) based on the presence of the recurrent IgH chromosomal translocations and cyclins D expression. Patients overexpressing CCND1 can be divided into two groups: TC1, characterized by the t(11;14) or t(6;14) translocation with overexpression of CCND1 or CCND3 and a non hyperdiploid status and TC2, with low to moderate levels of CCND1, absence of any primary IGH translocation and a hyperdiploid status. *Aims.* To assess CCND1 gene and cyclin D1 protein overexpression in a series of primary MM patients, to explore its relationship to the presence of the t(11;14), and to evaluate frequency and distribution of trisomy 11 in the different TC groups. Methods. Hybridization in situ (FISH) analysis with specific probes for CCND1 gene amplification (probe mixture of cyclin D1 band 11q13-CEP 11 bands 11p11-q11) and t(11;14)(q13;q32) were performed on CD138-purified plasmacells from bone marrows of thirty MM patients at diagnosis. Cyclin D1 protein expression and intensity was evaluate by immunohistochemistry. Results. FISH analysis revealed CCND1 overexpression in 14/30 cases (46.6%) and the presence of the t(11;14) translocation in 9/30 cases (30%) (Table 1). Patients with evidence of the t(11;14) showed strong nuclear staining for cyclin D1 (TC1 group) and 8 out 9 demonstrated CCND1 overexpression. The remaining 6 out 18 cases with increased CCND1 gene copy numbers lacked the t(11;14) and showed low to negative levels of cyclin D1 protein (TC2 group). Globally, the frequency of trisomy 11 was 40% (12/30 patients). It was demonstrated in 3 out 9 cases carrying the t(11;14) (TC1), 5 out 6 overexpressing CCND1 without the translocation (TC2) and 4 out 15 negative for both alterations (TC3-TC5). *Conclusion.* In our data, trisomy 11 don’t seems to cause directly overexpression of CCND1 as it is present in 4/15 patients without overexpression of CCND1 and in 3/9 patients carrying the t(11;14). One patient belonging to the TC2 group, overexpresses CCND1 and lacks both trisomy and translocation suggesting that cyclin D1 can be dysregulated by additional mechanisms. In TC2 group trisomy 11 probably may be considered as a recurrent polysomy of the hyperdiploid status.

Table 1.

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<th>Case</th>
<th>Age</th>
<th>Sex</th>
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*In the presence of CCND1 overexpression, the number of copies for each gene is indicated. NP: not performed; MC: monoclonal component. *IHC score: ++++ >75% tumor cell positive; +++ 50-75% tumor cells positive, +10-25% tumor cells positive.