A NOVEL FUSION 5′AFF3/3′BCL2 ORIGINATED FROM A t(2;18)(Q11.2-Q21.33) TRANSLOCATION IN FOLLICULAR LYMPHOMA

Impera L,
Albano F,
Lo Cunsolo C,
Funes S,
Iuzzolino P,
Laveder F,
Panagopoulos I,
Rocchi M,
Storlazzi CT

Department of Genetics and Microbiology, University of Bari, Bari, Italy;
Hematology, University of Bari, Bari, Italy; 3Servizio di Anatomia Patologica, Ospedale S. Martino, Belluno, Italy;
Servizio di Oncologia Medica, Ospedale S. Martino, Belluno, Italy;
Department of Clinical Genetics, University Hospital, Lund, Sweden

Follicular lymphoma is the second most frequent type of non-Hodgkin’s lymphoma in adults. The basic molecular defect consists in the t(14;18)(q32;q21) translocation, juxtaposing the B-cell lymphoma protein 2 gene BCL2 to the immunoglobulin heavy chain locus IGH@, and leading to the antiapoptotic BCL2 protein over-production. Variations in the t(14;18) are rare and can be classified into two categories: i) simple variants, involving chromosomes 18 and 2, or 22, in which the fusion partner of the BCL2 is the light-chain IGK@ or IGL@; ii) complex variant translocations, occurring among chromosomes 14, 18, and other chromosomes. We report a follicular lymphoma case showing BCL2 overexpression, detected by immunohistochemistry and Real-Time Quantitative PCR, consequently to the formation of a novel fusion gene between the 5′ of the lymphoid nuclear transcriptional activator gene AFF3 at 2q11.2, and the 3′ of BCL2. The present case shows evidence, for the first time, of BCL2 overexpression consequently to the fusion of BCL2 to a non-IG partner locus.

X Congress of the