An advanced genetic diagnostic method for multiple myeloma

A researcher at the University of Navarra, Borja Sáez Ochoa, has proposed a new genetic diagnostic method for multiple myeloma (MM), a type of bone marrow cancer, which permits the detection of this disease in earlier stages.

The dissertation of this biologist, produced in the Department of Genetics of the School of Sciences of the University of Navarra, and in the Institute of Human Genetics of the University Hospital of Schleswig-Holstein, en Kiel (Germany), is oriented towards the study of the genetic base of this cancer, and the posterior development of cytogenetic diagnostic strategies for the detection of alterations with prognostic value.

For this purpose, he has analyzed, by means of statistical methods, the cytogenetic changes in a group of patients with MM. This methodology has permitted the discovery of associations between specific chromosomal changes, and thus the description of a new classification of the disease. In addition, the technique of hybridization in situ with fluorescence allowed him to identify new recurrent genetic changes that are involved in the appearance of this pathology.

A disease associated with old age

Multiple myeloma is a disease which primarily affects persons above 60 years of age. In 2001 in Spain, 1716 new cases were detected, and 1554 patients with the disease died, with 20 of these in Navarra. According to Borja Sáez, with the new methods of diagnosis developed through this research project, such as the FISH and FICTION strategies, we will be able to detect genetic alterations rapidly and easily in the early stages of the disease, permitting its early diagnosis. In addition, he emphasized that these procedures will promote the description of molecular targets for future, more effective treatments of MM.

These new techniques for genetic diagnosis of MM are already being applied in 20 hospitals in Spain. And in a not too distant future, these tests will permit us to offer each patient a treatment adapted to the genetic modifications that he or she presents, which, while they may not provide a cure for the disease, will make it possible to transform it into a chronic and asymptomatic pathology.

Internet reference
www.unav.es

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