

New data on melanoma treatment

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People who carry a particular genetic variant are at significantly increased risk of developing malignant melanoma, new research shows.

Melanomas are known to be caused by exposure to the ultraviolet light in sunlight, but the precise mechanisms involved are complex. In a presentation at the 33rd Congress of the European Society for Medical Oncology (ESMO) in Stockholm, Portuguese researchers show that variations in a gene known as cyclin D1 also increase susceptibility to the disease.

This gene plays a key role in regulating the cell cycle, the intricate molecular process by which cells divide and replicate. Alterations in its activity are known to be associated with the development of several human cancers, including melanoma.

PhD student Raquel Catarino from the Portuguese Institute of Oncology in Porto and colleagues studied a particular variant of the gene in the blood of 1,053 individuals, including 161 cases with melanoma and 892 healthy individuals. Their analysis showed that individuals carrying two copies of the variant were 80% more likely to develop melanoma.

"Our study demonstrates that cyclin D1 polymorphism is associated with a higher risk of melanoma development, indicating that this genetic variation may confer growth advantage to cancer cells. Our results indicate that the proportion of melanoma cases attributable to this genetic alteration is 14%."

Other research groups have identified other genes that are implicated in susceptibility to melanoma. "We think that once the genetic factors involved in melanoma oncogenesis are identified and their importance established and validated, the individual's genetic profile could help clinical decisions, including disease screening and selection of higher-risk individuals," Dr. Catarino said.

In another presentation, Prof. Poulam Patel from Nottingham University in the UK reports the final results from a large randomized phase III study in 859 patients with stage IV melanoma. The clinical trial, coordinated by the EORTC Melanoma Study Group, involving 92 institutions in Europe, the US and Latin America, is the largest of its kind in this group of patients.

In the trial, chemotherapy-naive patients with stage IV disease were treated with either dacarbazine 1000 mg/m² IV every 21 days (the current standard treatment) or temozolomide 150 mg/m² orally on days 1-7 repeated every 14 days. "Temozolomide is an oral chemotherapy which has activity against melanoma and this regimen is a dose-intense way of delivering the treatment in the hope of delivering more active drug and more effectively," Prof. Patel said. "The study showed that although there were small differences in the response rate and side effects, there was no difference in the overall survival or progression-free survival."

"We continue to look for new treatments that will show benefit when tested in a large phase III study," he said.

Source: European Society for Medical Oncology

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