Italian 'bioinformatics' find mutations of rare kids' tumour

Di Redazione ANSA

Major study paves way for targeted neuroblastoma treatment

(ANSA) - ROME, JAN 3 - A new Italian study in 'bioinformatics' has uncovered several hitherto unknown mutations of a serious tumour in children, paving the way for new and more targeted treatment of the neuroblastoma.

The malign tumour of the nervous system strikes around 15,000 children and teenagers around the world each year, and over a hundred in Italy.

It is considered the leading cause of death and the third neoplasy for frequency after leukemias and childhood brain tumours.

The new study has been published in the eBioMedicine journal by a team of researchersi led by Mario Capasso and Achille Iolascon of Ceinge, respectively associate professor and lecturer in Medical Genetics at the Federico II University in Naples.

The research, funded by Open Onlus, the Italian Foundation for the Fight against Neuroblastoma, and the AIRC Cancer Research Foundation, is based on an analysis of the biggest ever case study hitherto completed.

All the genetic data have been made available on an online database which other researchers will be able to freely consult to develop new approaches to the condition.

"We analyzed the DNA of almost 700 children affected by neuroblastoma and more than 800 controls via advanced sequencing, an innovative technique that is able to decodify all the hitherto known genes in a reliable and fast way," said Professor Calasso.

"This is the biggest case study ever done, thanks to which we have discovered that 12% of the children with neuroblastoma has at least one inherited genetic mutation that increases the risk of developing a tumour." (ANSA).

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