

Washington, Feb 8 (ANI): Spanish researchers have found that extra virgin olive oil can help fight breast cancer.

Researchers of the Catalanian Institute of Oncology (ICO) and the University of Granada (Spain) have verified the bioactivity of the polyphenols present in extra virgin olive oil in breast cancer cell lines.

The work, carried out by Javier A. Menendez, of the Catalanian Institute of Oncology (ICO), in collaboration with Professors Alberto Fernandez Gutierrez and Antonio Segura Carretero, of the University of Granada, has been published in the journal BMC Cancer.

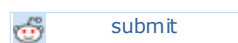
The study has proved the anti-HER2 effect of fractions of phenolic compounds directly extracted of extra virgin olive oil in breast cancer cell lines. They have used solid-phase extraction methods of semi-preparative liquid chromatography to isolate fractions of commercial oils and, later, separation techniques (capillary electrophoresis and liquid chromatography connected to mass spectrometry) to check the purity and composition of the fractions.

Such fractions were tested in their anti-cancer capacity both against positive HER2 and negative HER2 breast cancers, using in Vitro models and evaluating the effect of polyphenolic fractions in the expression and activation of HER2 oncoprotein through ELISA specific methods for HER2.

Fractions containing polyphenols such as hydroxitirosol, tirosol, elenolic acid, lignans, pinoresinol and acetopinoresinol, and secoiridoids, diacetox oleuropein aglycone, ligustrosid aglycone and oleuropein aglycone were able to induce important tumoricid effects in a range of micromolar and in a selective way against HER2 oncogene.

Therefore, the study confirms the potentiality of polyphenols to inhibit HER2 activity and to promote its degradation. (ANI)

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