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02 June 2015 | News | By BioSpectrum Bureau

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Adding a powerful new tool to the existing modality of breast cancer management, genetics and genomics company, ILife Discoveries has introduced a revolutionary new gene test that will help oncologists get a deeper insight into tumors and assist them in deciding if chemotherapy can be avoided in some cancer patients.

By giving a better understanding of biology of a tumor, the Not all cancers have the same physiology, nor do all tumors follow the same path of development. This is why chemotherapy, the difficult yet indispensible tool in cancer treatment is not needed in all patients. However, given the lack of our ability to predict course of disease and its risk of recurrence, doctors currently practice a blanket approach in treating all patients cancer, risk of recurrence of early stage cancer, thereby enabling medical oncologists to take informed decisions on the course of treatment. For millions of breast cancer patients in India, the twin technologies are advancements that can shed new light on whether treatment is possible without undergoing the harsh chemotherapy process.

Speaking on the occasion of the launch of gene test, Mr Anand Gupta, founder and CMD, iLife Discoveries mentioned, "The biology of each tumor is different. Apart from the stage of detection, an important component of treatment success is the physiology and subtype of the cancer with some subtypes having better prognosis as against others. Not all patients need to go through the difficult and challenging chemotherapy after a surgical procedure to kill chances of cancerous cells recurring. However, in the absence of reliable mechanisms to provide efficient insight into the cancer and the possibility of its recurrence, most oncologists take recourse to the tried and tested chemotherapy mechanism. The MammaPrint and Blueprint technology can help doctors reduce the use of unnecessary chemotherapy by identifying the risks and its need."

"As a surgical oncologist, I am concerned about the removal of cancerous tumor from the breast of a patient either through mastectomy or a lumpectomy. Unfortunately in some women the breast cancer still spreads. Until now we did not have any test to distinguish women in which cancer would spread from the women in whom it would not. But now we have an FDA approved 70 gene Mammaprint test, by which we can predict the behavior of tumor by looking at its genomic profiling and manage the patient accordingly," said Dr Ramesh Sarin, senior consultant, Surgical Oncology, Indraprastha Apollo Hospitals,

New Delhi.

"Most therapies which are administered to treat breast cancer are quiet toxic so it is better to select and use the suitable therapy for the appropriate women. The blueprint assay categorizes breast cancer patients into 4 different categories according to underlying tumor biology. Blueprint along with MammaPrint helps us to pick and choose a proper treatment for the patient based on their specific functional subtype and overall risk of recurrence," said Dr Ajay Sharma, medical oncologist, Rajiv Gandhi Cancer Hospital.

Dr Amit Verma, molecular oncologist at Max Hospital, Saket said, "A great need exists for better molecular characterization of tumor tissue as this would help in oncology decision-making process, facilitate treatment selection, and improve outcomes. Unlike previous-generation genomic tests, MammaPrint evaluates all of the critical molecular pathways involved in the breast cancer metastatic cascade. BluePrint pairs nicely to provide more individualized information regarding the molecular subtype of the tumor".

The area of DNA sequencing to predict cancer prognosis and development has gained attention in recent years. Actor and humanitarian Angelina Jolie had in 2013 generated much attention to gene tests that could identify the future risk of a woman suffering breast or ovarian cancer.

MammaPrint is a 70-gene assay intended as a prognostic test for women of all ages. Through the gene test results, patients are stratified into two distinct groups - low risk (good prognosis) or high risk (poor prognosis) of distant recurrence. Unlike other tests, the patient is given definitive Low Risk and High Risk results, eliminating the uncertainty of an intermediate risk score which can affect up to 39 percent of patients tested. These results, in addition to all other factors help you and your doctor make the most appropriate breast cancer treatment decisions. High risk MammaPrint patients show a statistical benefit from adjuvant chemotherapy, with the FDA reporting a result accuracy of 98.5 percent and classification accuracy of 97.7 percent on repeat testing.

Blueprint is a molecular subtyping assay used in addition to the MammaPrint test in a target population of patients with early-stage (stage I or II) breast cancer. By identifying the breast cancer subtype, BluePrint allows determination of a patient's potential level of responsiveness to chemotherapy more accurately as compared to IHC/FISH technologies, with better correlation to long-term clinical treatment outcomes.