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Q&A: Predicting Breast Cancer Recurrence

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Q: How do I know if I need additional therapy after breast cancer surgery?

A: A major advance in the treatment of cancer has been the use of what's called "adjuvant" therapy to prevent recurrence after primary treatment with surgery and radiation therapy.

Until recently, we didn't have tools that helped us predict which breast cancer patients really needed the additional treatment. If we did have such tests, we could avoid the risks, costs, and inconvenience of adjuvant hormonal therapy and chemotherapy in many women diagnosed with breast cancer.

In this new genomic era, we are able to look at the genes in breast cancer tissue and predict which women are at higher risk of recurrence. Two tests, which use these new technologies, have recently become available.

Mammaprint is a test that analyzes 70 genes from surgically removed breast cancer tissue to help predict recurrence. It is available for women with stage 1 or 2 invasive breast cancer with no lymph node involvement. Another test, OncotypeDX, analyzes 21 genes, but only for estrogen receptor-positive breast cancers that will be treated with hormonal therapy. Recent studies have shown both tests can also predict recurrence risk of cancer that has spread to nearby lymph nodes, but the standard use of these tests is still for node-negative cases.

Although the tests represent exciting breakthroughs and provide valuable information, they are still not perfect. Some doctors routinely run these tests to provide recurrence risk details to patients, who may then base treatment decisions regarding adjuvant chemotherapy on the results. But other doctors don't believe the tests are sufficiently accurate to make those decisions.

Currently, clinical trials are under way with both tests to answer the question of how effective they are as a guide for whether or not a woman needs adjuvant therapy for breast cancer. The trials will take several years to complete, so until then, patients and doctors must decide for themselves if either test is appropriate, and how much it should influence their treatment decision.

In the not-too-distant future, more accurate tests will allow doctors to more precisely target which breast cancer patients really need adjuvant treatment and which drugs are best to use.

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