

Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: <https://reachmd.com/programs/project-oncology/detecting-recurrent-breast-cancer-the-role-of-liquid-biopsies-and-molecular-markers/26407/>

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Detecting Recurrent Breast Cancer: The Role of Liquid Biopsies and Molecular Markers

Announcer:

You're listening to *Project Oncology* on ReachMD. On this episode, we'll hear from Dr. Ben Park, who's the Director of the Vanderbilt-Ingram Cancer Center, where he's also a Professor of Medicine in the Department of Medicine's Division of Hematology and Oncology. He'll be discussing his session at the 2024 San Antonio Breast Cancer Symposium, which focused on molecular recurrent disease. Here's Dr. Park now.

Dr. Park:

How are we using liquid biopsies to detect molecular recurrence of breast cancer? This is still in infancy and not something that we have a lot of data for. We have a lot of exciting early data and promising data, and there are actually companies now where one can order these tests. But there's two problems right now with current commercially available assays. One is, if a patient is positive, studies have shown that, in fact, that means that patient probably has some molecular recurrence, and that could lead to true clinical metastatic disease in the future. What we don't know is how do we act upon that information and knowledge. The obvious thing or knee-jerk reaction would probably be "Oh, let's give more drugs," but we don't honestly know whether or not that's going to impact overall survival or even disease-free survival. We are hopeful that it will, but those are the types of studies that are needed to really prove that a test is not only clinically validated, which these tests are, but has clinical utility, which so far we don't know the answer to that question.

The second problem with these tests is that the negative predictive value—or really we're talking about the level of sensitivity—isn't quite there yet where we can say to a patient, "Oh, you're negative. That means you're okay." There is clearly in the validation studies a group of patients that would be negative by current liquid biopsy tests but in fact will develop recurrence, and so that's also a problem, and I think that needs to be honestly stated with any patient who's getting these tests. A negative result isn't necessarily negative, and so that's really important.

All that to say we are very excited as a field that these will get to the point where we will have a test that shows whether patients are—what we're talking about really is clinically—cured or not, and if they are, we have a little bit more or maybe a lot more comfort in saying your risk of recurrence is super low, and then with clinical trials say, well, if it's positive, we can treat you with other drugs to have better outcomes.

So the question is, What are the most promising markers that researchers are focusing on for assessing recurrence in breast cancer? So I'm a little bit biased in this, but in my field, this is something that we got in very early on about 15 years ago, and my bias is towards looking at mutations in the blood. Circulating tumor DNA, or ctDNA, really reflects microscopic disease because cancer cells are a disease of DNA gone bad. They're full of mistakes, or mutations as we call them, and so when they're secreting their cell-free DNA, those mutations, i.e. now called ctDNA, can be detected with newer technologies. And we're at the level right now where we're trying to increase the ability to detect ctDNA at as low as even one part per million, and that's the level we really need to assess whether patients are clinically cured or at least never going to have to worry about cancer coming back versus, if it's positive, maybe we can then treat them with something because we know a positive signal means they have residual disease that if left untreated, will probably come back as metastatic disease.

Again, those studies are ongoing. We're going to have to prove that intervention with therapies will actually lead to better outcomes. We're starting to get that data, and we will get more data over the next 5 to 10 years, and I'm really hopeful that these things will help us guide therapies for our patients.

Announcer:

That was Dr. Ben Park sharing highlights from his session at the 2024 San Antonio Breast Cancer Symposium, which focused on molecular recurrent disease. To access this and other episodes in our series, visit *Project Oncology* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!