

New Methods of Tumor Analysis May Predict Effectiveness of Chemotherapy

In this study, researchers analyzed tumor samples from patients with breast cancer that had spread to the lymph nodes using a tool called a tissue microarray. The researchers hoped this analysis would identify patients that would be helped by adding the drug paclitaxel (Taxol) to their treatment plan. With this tool, the researchers sorted the tumor samples into several subtypes of breast cancer. They then compared each patient's treatment results to the subtype of breast cancer and found that patients with one subtype called "Luminal A" were not helped at all by extra chemotherapy, while patients with two other subtypes of breast cancer (called "basal" and "HER2-positive") did benefit from paclitaxel.

What this means for patients

This study is another step in helping doctors find the best treatment for each patient. For some people with breast cancer, adding paclitaxel to treatment helps them live longer; for others, the drug has no real benefit and may cause unnecessary side effects.

"Breast cancer is an incredibly complicated, challenging disease, and the more we learn about how to customize treatment based on individual tumor features, the more we will be able to improve results for patients," said lead author Torsten Nielsen, MD, PhD, Associate Professor of Pathology and Laboratory Medicine at the University of British Columbia.

More research is needed on these new methods before they can be used in combination with other tests to help determine the best treatment option for a patient.

What to Ask Your Doctor

- What type of breast cancer do I have?
 - What is the grade and stage of this disease? What does this mean?
 - What are my options for treatment?
 - Do you recommend chemotherapy after surgery?
 - How will each treatment option benefit me? What are the risks?
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