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Ongoing Research Shows Pathway Towards Personalizing Pancreatic Cancer Treatment

An early ongoing study suggests that looking at gene expression (which genes within each tumor are turned on or off) may help doctors predict how well chemotherapy will work and monitor how well chemotherapy is treating the cancer. Some genes within pancreatic tumors are similar between patients and some are different. These differences affect how well cancer drugs work for each patient.

In the study, researchers examined the gene expression of circulating tumor cells (tumor cells that have shed off the original tumor and are traveling in the blood) for 46 patients with stage II, stage III, or stage IV pancreatic cancer. During the study, these patients received one of 12 different drug combinations commonly used to treat pancreatic cancer.

Although the gene expression information was not used to make the treatment decisions for the patients in this study, researchers found that those patients who received the treatments that their gene expression information suggested might work best were less likely to have their disease worsen. For these patients, it took about four months for their cancer to worsen, compared with a little less than three months for the patients whose gene expression information suggested that the treatment they received might not be the best option.

For the 11 patients who had their disease worsen, the researchers re-tested the circulating tumor cells and found that the gene expression had changed. This indicates that the treatment could no longer control the cancer?s growth and a new treatment may be needed.

What this means for patients

?This research lays important groundwork for customizing treatments according to a patient?s genetic makeup,? said Kenneth Yu, MD, Assistant Professor at Memorial Sloan-Kettering Cancer Center in New York. ?Ultimately, we hope this strategy can be used to find out which drugs would work best for each patient and monitor how treatment is working, so it can be changed at the earliest sign that the disease is worsening.? This study is ongoing and more research is needed before this type of testing can be widely used.

Questions to Ask Your Doctor

- What stage of pancreatic cancer do I have? What does this mean?
- What are my treatment options?
- What treatment do you recommend? Why?
- Are there any ways to find out which treatment option will work best for me?
- What clinical trials are open to me?

For More Information

Guide to Pancreatic Cancer [1]

Facts About Personalized Cancer Medicine [2]

Clinical Trials [3]

Links:
[1] http://www.cancer.net/cancer-types/pancreatic-cancer
[2] http://www.cancer.net/all-about-cancer/cancernet-feature-articles/cancer-basics/facts-about-personalized-cancer-medicine
[3] http://www.cancer.net/all-about-cancer/clinical-trials