New treatment protocol extends survival in some cases of once inoperable pancreatic cancer

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Investigators at the University of Texas MD Anderson Cancer Center, Houston, have reported on a new approach to treating previously inoperable complex pancreatic adenocarcinoma that has significantly increased long-term survival for some patients. Pancreatic adenocarcinoma is one of the most devastating forms of pancreatic cancer with survival rates of only 5 percent at five years. Surgical removal of these tumors offers a chance for cure, but it is estimated that only about 20 percent of patients can undergo this treatment. The tumor in the pancreas often grows into adjacent vital blood vessels, and this is the most common reason a surgeon will consider pancreatic cancer to be inoperable and incurable. However, the MD Anderson investigators have achieved an important milestone in the surgical treatment of the disease in terms of improving prognosis for patients who meet the criteria for a newly developed protocol.

In a study published in the July issue of the Journal of the American College of Surgeons, the investigators reported on 88 patients who had been told their tumors were inoperable after an initial surgical attempt at removal, 66 of whom completed a multidisciplinary treatment regimen with successful tumor removal. This approach has been refined at MD Anderson over the last 20 years and involves a more accurate and collaborative interpretation of CT scans of the tumor between surgeons and radiologists; chemotherapy and radiation treatment of the tumor; and finally an advanced approach to surgical resection with planned removal

and reconstruction of involved vital blood vessels near the tumor.

"We've been able to achieve survival numbers for these patients that are comparable to those receiving surgery for clearly operable tumors," reported lead study author Jason B. Fleming, MD, FACS. On average, patients in this study lived about 30 months after tumor removal, which is almost three times longer than the 11 months for patients who are never able to have their tumors surgically removed.

The study enrolled high-risk patients who had been originally diagnosed at outside institutions with operable, localized cancer. However, at their initial operations the intent to remove the tumor was aborted when the disease turned out to be more extensive than originally detected.

The study involved a cohort of patients referred to MD Anderson from 1990 to 2010, many of whom were ultimately able to undergo a successful operation to remove the tumors. While the results of small series and isolated cases in which this approach was used have been published, this is the largest study including only those patients who had a previous unsuccessful attempt to remove the tumor, according to Dr. Fleming.

The pancreas is located in the back of the abdomen, near vital arteries and veins that provide blood to the intestines and liver. If the tumor encroaches on these vessels, the operation to remove the tumor can also involve reconstructing these important blood vessels, raising the complexity of the procedure. Reconstructing these vessels in a way that restores appropriate blood flow is critical for the overall wellness and survivability of patients after the operation.

The investigators stratified each patient's risk for metastatic disease based on tumor involvement with local blood vessels, suspicious biopsy results and the nature of the tumor, and overall health status aside from

pancreatic cancer. Patients who met these criteria underwent the protocol.

The key to screening patients for treatment and staging of their cancer is radiographic imaging, specifically in the interpretation of CT scans of the tumors before the operation, Dr. Fleming explained. "The interpretation needs to be performed in conjunction with the radiologist, but also with heavy involvement by the surgeon," he said. "The goal should be to give the surgeon a clear idea of tumor location and vessel involvement before beginning the operation," he said.

The MD Anderson protocol also uses a scoring system along with structured documentation for the radiologist to more accurately assess the extent of tumor-vessel involvement, according to Dr. Fleming. "With good imaging and good interpretation you have a high likelihood of being able to predict involvement of the vessels before surgical treatment, not after," he said. About 46 percent of the patients in this study required some type of vascular resection, according to Dr. Fleming.

Of the 88 patients enrolled in the study, 50 of them came from academic centers, 25 from community hospitals, and 13 from international centers. However, hospital type and surgeon skill are not necessarily indicators of the setting in which this protocol can be used, Dr. Fleming said. Removing the pancreatic tumor and then sparing the veins and arteries requires not only a high level of technical surgical skill but also a focused team of medical specialists collaborating on complex pancreatic cancer, Dr. Fleming said.

The MD Anderson study underscores the need for patients with inoperable pancreatic adenocarcinoma to seek out a second opinion, Dr. Fleming said. "I would say to these patients and loved ones that it is important to advocate for yourself and your family, to seek out opinions,

and not necessarily go with the first thing you hear as the answer," Dr. Fleming said. "This study is an example of patients who have benefited by persisting. 'Hope exists' is the message we want these patients to hear," he concluded.

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