Staging of Pancreatic Ductal Adenocarcinoma

Pancreatic ductal adenocarcinoma, cancer of the pancreas (https://www.radiologyinfo.org/en/info/pancreatic-cancer) , usually causes only vague symptoms until the pancreatic duct is blocked. Surgery with complete removal of the tumor is curative. Thus, it is important to find out if the tumor has spread outside of the pancreas or whether it remains confined to the pancreas and can be completely resected (surgically removed).

Multidetector CT (https://www.radiologyinfo.org/en/info/bodyct) (MDCT) with contrast and MRI (https://www.radiologyinfo.org/en/info/bodymr) with and without contrast are both appropriate methods for detecting and staging of pancreatic cancer. MDCT is usually preferred. Pancreatic cancer can spread (metastasize) locally to the adjacent organs like the stomach and peritoneal lining (abdominal membrane surrounding the pancreas and other organs) or distantly via the blood or lymph system to the lymph nodes, liver, lungs, and bones.

An endoscopic ultrasound done with fine-needle aspiration may be appropriate to biopsy suspicious lesions, both in the pancreas and lymph nodes. PET (https://www.radiologyinfo.org/en/info/pet) using fluorine-18-2-fluoro-2-deoxy-D-glucose imaging/CT may also be an appropriate follow-up to see if the cancer has spread.

Depending on stage, pancreatic cancer can either be operated on right away or can require treatment to shrink the tumor in order to allow surgery. If, however, there is metastasis elsewhere, then it can render the patient inoperable.

There are limited data on the appropriate imaging follow-up after the initial treatment to shrink the tumor(s) before curative surgery, but MDCT with contrast and MRI with and without contrast are appropriate in re-evaluating the cancer before the patient undergoes surgery.

See the Pancreatic Cancer Treatment page (https://www.radiologyinfo.org/en/info/pancreatic-cancer-treatment) for more information.

— By Frank J. Rybicki Jr. and Tasneem Lalani, MD. This information originally appeared in the *Journal of the American College of Radiology*.

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