

agnostic accuracies of MRI compared with those of CT in detecting hepatic metastases, especially for smaller metastases, although the accuracies of MRI in detecting primary tumor and determining respectability were similar to those of CT.

In conclusion, the advances in radiologic techniques have improved diagnostic efficacies of imaging examinations for evaluating pancreatic cancer. However, there are still limitations of radiologic studies, including the diagnosis of early pancreatic cancer and the assessment of treatment response of pancreatic cancer after neoadjuvant chemotherapy. The use of multi-modality imaging may be helpful to overcome the current limitations of radiologic examinations.

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EUS-Guided Tissue Diagnosis

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Pancreatic cancer is notorious for its poor prognosis even after a curative resection. Moreover, most cases are not the candidates for a surgery. Without surgical resection, the histopathological diagnosis of pancreatic cancer was too difficult due to the location of the cancer and surrounding major vessels before the clinical application of endoscopic ultrasound guided fine needle aspiration (EUS-FNA).

The endoscopic ultrasound (EUS) is a device which has the ultrasound probe at the tip of an endoscope in order to observe a suspicious extraluminal lesion from esophagus, stomach, duodenum, and distal colon. Therefore, EUS guided tissue diagnosis (TD) made a pancreatic lesion punctured from stomach or duodenum observing intervening vessels and finding a safe route. Obtaining tissues nearer to the lesion than any other diagnostic method, the accuracy of pancreatic solid lesion is very high especially of pancreatic cancer. Nowadays, it is the choice of method to make a histopathological diagnosis of unresectable pancre-

atic cancer.

At first there was a worry about complications of EUS-TD. To obtain the specimen, it is inevitable to pass the needle from gastric or intestinal lumen where the bacteria can be potentially colonizing through the connective tissue containing the blood vessels to the aseptically target. So, there would be some worries about high complication rate including bleeding and infection. However, the actual complication is not so common. Overall complication rate was up to 2.5%.¹⁻⁵ Fortunately, the serious complication rate is less than 0.3%.⁶ These reported complication rates were higher in prospective studies than in retrospective studies.^{3,7} It was reported that complications occurred more frequently during puncturing into pancreatic cysts than into pancreatic solid mass. In addition, a tract seeding, one of main concerns when EUS-TD was performed in malignant lesions, is very rare and the studies about tract seeding showed it seems to be negligible.⁸⁻¹⁰ In this regard, it wouldn't be unreasonable to perform EUS-TD for the patient who is thought to have a surgically resectable pancreatic cancer in order to avoid an unnecessary major operation.

In conclusion, the EUS-TD should be first considered to make a histopathological diagnosis of unresectable pancreatic cancer and moreover, and it can be recommended to make a pre-operative diagnosis of the pancreatic cancer.

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