Pancreatic tumors: evaluation with endoscopic US, CT, and MR imaging

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PURPOSE: To compare the value of endosonography (endoscopic ultrasound [US]), dynamic computed tomography (CT), and magnetic resonance (MR) imaging in the evaluation of pancreatic tumors. MATERIALS AND METHODS: Forty-nine consecutive patients with clinical suspicion of pancreatic tumor underwent endoscopic US (n = 49), CT (n = 46), and MR imaging (n = 25). The final diagnosis of a malignant (n = 22), benign (n = 2), or inflammatory (n = 9) tumor, or no (n = 16) tumor was made at surgery (n = 28) and/or a combination of biopsy (n = 9) and 9-24-month follow-up (n = 12). RESULTS: The sensitivity was 94% for endoscopic US, 69% for CT, and 83% for MR imaging. Specificity was 100% for endoscopic US, 64% for CT, and 100% for MR imaging. Accuracy was 96% for endoscopic US, 67% for CT, and 84% for MR imaging. The sensitivity for the detection of tumors less than 3 cm in diameter was 93% for endoscopic US (n = 15), 53% for CT (n = 15), and 67% for MR imaging (n = 12). CONCLUSION: Endoscopic US is more accurate than dynamic CT and MR imaging in the diagnosis of pancreatic tumor, particularly for tumors less than 3 cm in diameter.