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GI IMAGE

Pancreatic Metastasis from Endometrial Carcinoma

Susanne Ghandili[1] · Jan Bardenhagen[1] · Jakob Robert Izbicki[1]

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A 77-year-old woman was admitted to our hospital for further diagnostic exploration of an unclear pancreatic tumor. Fourteen days earlier, the patient developed upper abdominal pain and vomiting. In the year 1995, at the age of 54 years, the patient was diagnosed with breast cancer and resected in the context of a breast-conserving therapy, followed by adjuvant radiotherapy and treated with tamoxifen for at least 5 years. In addition, at the age of 73 years, the patient was diagnosed with an endometrial carcinoma (TNM stage: pT1a, pNx, pMx, L1, V0, Pn0, R0, G3). First, a laparoscopic total hysterectomy with bilateral adexectomy was performed. Based on the histological evidence of an endometrial carcinoma of the papillary serous type, the recommendation for secondary pelvic lymphadenectomy and adjuvant radiochemotherapy was given, but refused by the patient. Eight months after the primary resection, evidence of tumor recurrence in the vaginal stump was observed. Therefore, a vaginal excision, pelvic lymphadenectomy, and omentectomy were performed. This was followed by a high-dose-rate brachytherapy of the vaginal stump and the application of six cycles of carboplatin. The physical examination revealed an epigastric tenderness in the epigastrium. Computer tomography (CT) revealed a suspicious wall-thickened cystic tumor of 2.7 cm in the pancreatic head with no reliable relation to the pancreatic duct (Fig. 1) and no evidence of thoracoabdominal metastasis. Locally, there were no signs of pathologically enlarged lymph nodes. Nevertheless, a safe morphological difference between an intraductal papillary mucinous neoplasia and a pancreatic carcinoma was not possible, so that an endoscopic ultrasound (EUS) and fine needle aspiration (FNA) were performed. EUS revealed a more solid mass of 2.9 × 2.2 cm in the pancreatic body and several locoregional lymph nodes measuring up to 1.2 cm were found. Cytologically, a necrotizing lesion and atypical cells were found. Based on the suspected diagnosis of a localized pancreatic carcinoma, we set the indication for an exploratory laparotomy and performed a Whipple surgery. Instead of a pancreatic carcinoma, the histological preparation of the surgical specimen showed a 2.7-cm necrotizing focal lesion of a poorly differentiated serous high-grade adenocarcinoma (Fig. 2) with positive stains of CK7, p53, and p16 and negative stains of ER, PR, and CK20. Due to the renewed evidence of an endometrial carcinoma of the papillary serous type and the significantly lower prognosis compared to the low-risk endometrial carcinomas, we have recommended the application of an adjuvant chemotherapy with carboplatin and paclitaxel.

Metastatic lesions in the pancreas are uncommon and constitute approximately 2% of all pancreatic malignancies.[1] Mostly, they originate from renal cell, lung, breast, and colorectal cancers. Endometrial cancer is the fourth most common malignancy in women. More than 70% of all endometrial carcinomas present clinically early by postmenopausal vaginal bleeding. Even though distant metastasis in endometrial carcinoma is rare, when it occurs, pulmonary, pleural, and vaginal metastases are the most frequently observed. However, this does not apply to endometrial carcinomas of the papillary serous type and of the clear cell type. Because of their early metastatic tendency, both subtypes have significantly worse 5-year survival rates compared to endometrioid endometrial carcinoma (59% in stage I and 42% vs. 80%).[2] So far, pancreatic metastasis from an endometrial carcinoma have been observed and described only in isolated cases and therefore represent an absolute rarity.

Back in the year 1950, Allen O. Whipple wondered what significance radical resection had in the treatment of cancer.[3] In fact, this question arises even more seriously, when unusual cancer lesions are observed. We presented the case of a 77-year-old woman with a single pancreatic metastasis of a papillary serous high-grade endometrial carcinoma. Given the

✉ Susanne Ghandili
Susanne.ghandili@stud.uke.uni-hamburg.de

[1] Department of General, Visceral and Thoracic Surgery, University Hospital Hamburg-Eppendorf, Hamburg, Germany

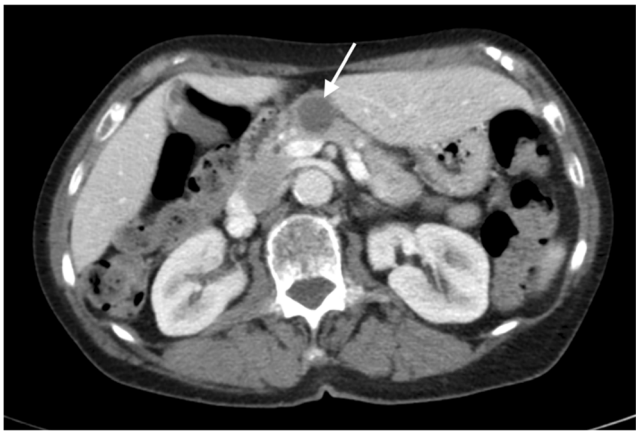

Fig. 1 Contrast-enhanced spiral abdominal CT shows the presence of a pancreatic space in the pancreatic body, immediately anterior to the confluence venosum with extensive contact with the hepatic artery and the confluence itself, but with evidence of free perfusion of both vessels

rarity of pancreatic metastases, a preoperative determination between primary and secondary tumors of the pancreas is extremely difficult. Next to CT EUS is often used to describe pancreatic lesions. In 2005, DeWitt et al. analyzed retrospectively among other things the features of EUS in patients with pancreatic metastases diagnosed by EUS-guided FNA. DeWitt et al. demonstrated that patients with pancreatic metastases are more likely to have well-defined margins in EUS compared to a cohort of patients with primary pancreatic cancer. However, other statistically significant differences between these groups like tumor size, echogenicity, consistency, localization, or lesion number could not be demonstrated.[4] In our opinion, the use of a FNA should be considered carefully, since an iatrogenic generated irresectability is fatal.

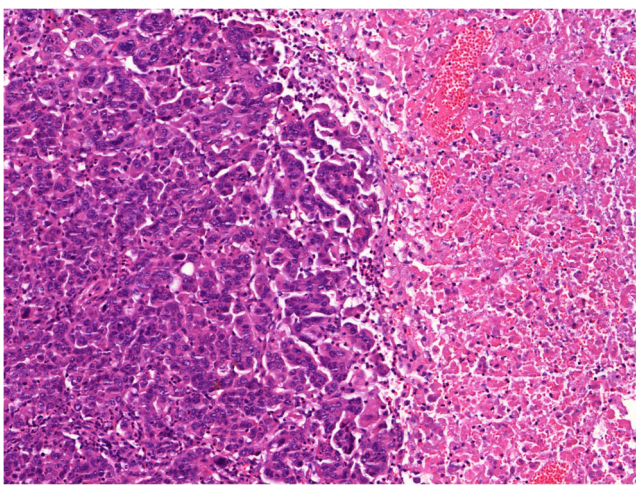

Fig. 2 Histology: features of high-grade malignancy on the left side. Pancreatic tissue on the right side. HE, orig. magn. × 200

In 2008, Reddy et al. analyzed retrospectively a group of 49 patients with isolated metastatic cancers from nonpancreatic primary diseases for evaluation of safety and efficiency of a pancreatic resection. Reddy et al. demonstrated that despite a 52% morbidity rate after pancreaticoduodenectomy was performed in cases of isolated pancreatic metastasis, the Whipple's surgery is a low-risk procedure given the fact that most complications are controllable and not life-threatening. In addition, with a median cumulative overall survival of 3.7 years, Reddy et al. suggested that a long-term survival can be achieved in patients undergoing pancreatic resection for isolated pancreatic metastases. However, it must be mentioned that the majority of the patients in Reddy et al.'s study suffered from renal cell cancer and therefore, a reliable general conclusion about a long-term success regarding to other cancer entities cannot be made.[5] Given the fact that the perioperative mortality for pancreaticoduodenectomy performed in cases of a ductal pancreatic carcinoma is about 1% and the perioperative morbidity is about 38%, some authors recommend a surgical resection for isolated metastatic lesions in the pancreas as well.[5–7] However, so far according to our knowledge, there are no larger trials available to prove or disprove this assumption. For those patients with suspected isolated pancreatic metastasis of a renal cell cancer, a radical resection should be offered as a treatment option as the likelihood of a significant prolongation of the overall survival outweighs the perioperative risks.[5] In all cases of other cancer entities, a radical resection of an isolated pancreatic metastasis remains, from our point of view, a case by case decision.

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