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Case Report

Synchronous Pancreas Adenocarcinoma and Breast Infiltrative Ductal Carcinoma

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ABSTRACT

The association between pancreas adenocarcinoma and breast infitrative ductal carcinoma is extremly rare. A 55-year-old woman was diagnosed as having a pancreatic adenocarcinoma. The patient underwent a Whipple operation. At the pathology consultation; result was well- differentiated adenocarcinoma, Six months later, patient came to routine polyclinic control with breast mass. After the true-cut biopsy, invasive ductal breast carcinoma was detected in pathological examination. The prosedure was breast conservation surgery and axillary lymph node dissection. We administered adjuvan chemotherapy and radiotherapy. We think that common genetic mechanism between pancreatic adenocarcinoma and breast infiltrative ductal carcinoma might be present. Clinicians should pay attention to the possibility associated breast cancer in preoperative screeening and follow up of patients with pancreatic adenocarcinoma.

Key words: *Pancreas, breast, cancer, synchronous*

Pankreas Adenokarsinom ve İnfiltratif Duktal Meme Karsinom Birlikteliği

ÖZET

Pankreas adenokanseri ile memenin infiltratif duktal karinomu birlikteliği oldukça nadirdir. Ellibeş yaşında bir bayan hastaya pankeras adenokanseri tanısı ile Whipple operasyonu uygulandı. Histopatolojik inceleme sonucu iyi diferansiye adenokanser olarak rapor edildi. Altı ay sonra rutin poliklinik kontrolleri sırasında meme de kitle tespit edildi. Alınan trucut iğne biyopsisinde invaziv duktal meme kanseri saptandı. Hastaya meme koruyucu cerrahi ve aksiler lenf nodu diseksiyonu uygulandı. Operasyon sonrası adjuvan kemoterapi ve radyoterapi uygulandı. Pankreas adenokanseri ile memenin invaziv duktal karsinomu arasında genetik bir benzerlik olabileceğini düşünmekteyiz. Bu nedenle pankeras kanseri olan hastalarda meme kanseri görülebileceği ihtimali ile klinisyenler daha dikkatli olmaları gerekmektedir.

Anahtar kelimeler: *Pankreas, meme, kanser, eş zamanlı*

INTRODUCTION

The association between pancreas adenocarcinoma and breast infitrative ductal carcinoma is an extrem????y rare condition (1), and to the best of our knowledge, only a few such cases have been documented. In the last ten years the incidence of a second tumor is elevated between 2-10% in patients previously affected by another tumor. The second tumor may be located in the same organ, as a synchronous or metachronous tumour, or in different organs (2) We report a case of pancreatic adenocarcinoma associated with breast infiltrative ductal carcinoma.

CASE

A 55-year-old woman was diagnosed in October 2009 as having a pancreatic adenocarcinoma. Previously suffering from obesity, she presented with anorexia, nausea, vomiting, and was deeply jaundiced, and the examination only revealed tenderness in her epigastrium. The results of the routine hematological examination were within the normal range: CEA and CA19-9 were 2.6 ng/ml (0-3 ng/ml), 39.2 U/ml (0-35 U/ml), respectively. Direct biluribine was, 9.9 mg/dl, and total biluribine 16 mg/dl. Liver enzymes and alkaline phosphatase levels were elevated. Biliary tract ultrasound, CT scan, and

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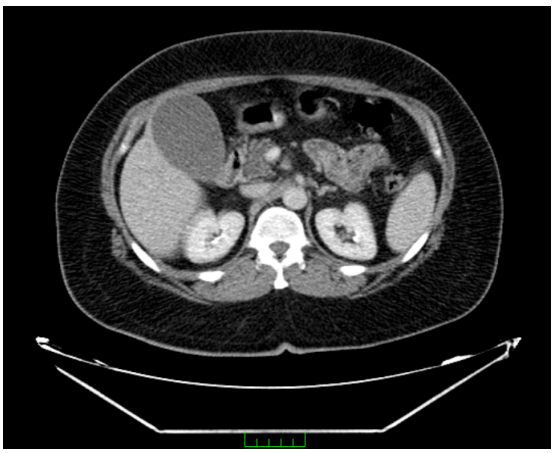

***Figure 1**. The appearance of the pancreatic cancer.*

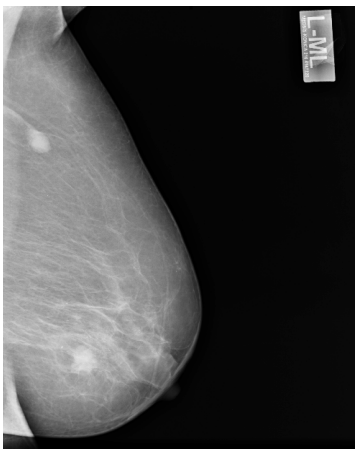

***Figure 2**. The view of the left breast cancer*

MRCP revealed dilatation of the common bile duct and of the intrahepatic ducts. There was no liver metastases or vasculary invasion (Figure-1). ERCP showed that there was a tumor on the pancreas. At laparotomy, a large mass was noted ??? the head of the pancreas (4x5x4 cm). No ascites, liver metastases, superior mesenteric artery or portal vein invasion were observed. The patient underwent a Whipple operation. At the pathology examination the results showed a well- differ???ntiated adenocarcinoma, There was an invasion of the duodenal serosa (T3N0M0). According to the medical oncological consultation we planned an adjuvan Gemsitabine treatment, but the patient refused this option and because of this, the patient was followed by the medical oncologist.

Six months later, the patient came to the polyclinic for a post surgical follow up and at the same time presented with a breast mass. The tumor measured 2x2x3 cm and extended to the skin at the middle section of the left breast (Figure-2). At the same time, axillary lymph nodes were palpable. After the true-cut biopsy for the breast mass, invasive ductal breast carcinoma was detected in the pathological examination. Results from the routine hematological and biochemical examination were within the normal range: CA 15-3 and CEA were 8.26 U/ml (0-25 U/ml) and 1.66 ng/ml(0-3 ng/ml), respectively. Bone scintigraphy, CT scan of the thorax and abdomen revealed no metastases. The patient was operated on a week after diagnosis. The procedure decided upon was breast conservation surgery and axillary lymph node dissection. After the breast conservative surgery, a histopathological examination revealed the following: a tumor, 3cm in diameter, nuclear and histological. grade 2; negative surgery lines; perineural and lymphatic invasion. Three of 23 lymph nodes were infiltrated with malignant cells in the axilla. The ????strogen and progesterone receptors were positive, 80% and 70%, respectively. CERB B2 was positive in the immunohistochemical analysis (T2 N1 M0).

We administered an adjuvan treatment in 4 cycles of cyclophosphamide 600 mg/m2 and adriamisin 60 mg/m2. After adjuvan chemotherapy we used adjuvan radiotherapy on the remaining breast tissue and axillary region. After this treatment we administered 12 cycles of weekly paclitaxel treatment and anastrozole, 1 mg/day. The patient is still being followed by the medical oncologist.

DISCUSSION

Recently an increase in the incidence of multiple primary cancers has been observed, and cases of two or more malignant primary tumors have appeared with high frequency in the literature. An inherited predisposition to cancer development could be responsible for a portion of multiple primary malignancies (3,4). The overall reported incidence of pancreatic cancer associated with other organ malignancies is 1.2-20%. Pancreatic cancer is associated with a high incidence of malignancies of the gastrointestinal tract, especially the stomach (5). In

general, patients who underg??? went?? surgical therapy for primary malignant diseases receive periodical follow-up examinations to check for either metastasis or recurrence of the malignancy. In the present case, when the pancreatic carcinoma was detected we could not establish a diagnosis of the breast cancer. After the pancreatectomy, the patient came to a routine polyclinic examination with a breast mass. The tumor measured 2x2x3 cm. We think that during the surgical treatment of the pancreatic carcinoma, the breast carcinoma was already in existence but not detectable during the examination. We think that female patients with pancreatic carcinomas should be examined for synchronous breast infiltrative ductal carsinoma before surgical treatments.

According to Hiripi et al. there were familial associations between patients who had both pancreatic and breast cancers (6). A number of susceptibility genes are common to both breast and pancreatic cancer, especially single nucleotide polymorphism (7). Previous animal studies have shown that a high dietary intake of fats especially unsaturated fats may be implicated as a carcinogenic factor in breast and pancreatic adenocarcinomas (1). In addition to an inherited predispotion to developing cancer, this could well have been a contributing factor in the development of both the breast and pancreatic cancer in our patient because she also suffered from obesity. Though there have been many reported cases of gastro-intestinal tract cancer associated with pancreatic cancer, breast cancer and pancreatic cancer seems to be extremely rare although the incidence of this combination maybe on the increase according to some statistics, especially in Japan where eleven cases have been documented since 2000 (5). In conclusion; this is an unusual case of synchronous breast infiltrative ductal carcinoma and pancreatic ductal adenocarcinoma.

We think that a common genetic mechanism between pancreatic adenocarcinoma and breast infiltrative ductal carcinoma might be present. Clinicians should pay attention to the possibility of associated breast cancer in the preoperative screeening and follow up of patients with pancreatic adenocarcinoma.

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