

Case report

Autoimmune Pancreatitis Out of the Criteria: A Case Report

(Kriterlerin dışında otoimmün pankreatit: Bir olgu)

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ÖZET

Otoimmün pankreatit tıkanma sarılığı, pankreasda büyüme gibi pankreas kanserine benzeyen özellikler taşıyan fibroinflatuar bir hastalıktır. Pankreas kanserine benzerliği, semptomlarda coğrafi değişikliklerin olması farklı tanı kriterlerine neden olmuştur. Dört aydır kilo kaybı, sarılık, iştahsızlık şikâyetleri olan 83 yaşındaki hastada pankreas kanserinden şüphelenilmiştir. Tetkik sonuçlarında otoimmün pankreatiti kriterlerine uymadığı görülmüştür. Pankreas kanseri ön tanısı ile Whipple operasyonu yapılan hastanın patoloji sonucu sitomegalovirüs inklüzyon cisimcikleri içeren otoimmün pankreatit şeklinde gelmiştir. Otoimmün pankreatit için farklı tanı kriterleri olmasına rağmen halen tanıda yetersizlikler mevcuttur. Bu olgu da yayınlanmış kriterlere uymamıştır. Otoimmün pankreatit etiyolojisi net olmamakla beraber farklı otoimmün ve pankreas hastalıklarına yol açabilen sitomegalovirüs etiyolojide düşünülmesi ve araştırılmasıdır.

Anahtar Kelimeler: Otoimmün pankreatit; pankreas kanseri; sitomegalovirüs

ABSTRACT

Autoimmune pancreatitis is the result of systemic fibroinflammatory disease which mimics pancreatic cancer with the signs of obstructive jaundice, and pancreas enlargement. As it has similarities with pancreas cancer; the symptoms of autoimmune pancreatitis show geographic changes, there have been several diagnostic criteria. Pancreas cancer was suspected in 83 years old man who had symptoms like weight loss, jaundice, loss of appetite for 4 months. He has been searched by laboratory, radiological and nuclear medicine investigations. Autoimmune pancreatitis was not suspected according to different diagnostic criteria. After whipple operation, the pathological evaluation of the surgical specimen showed autoimmune pancreatitis; also cytomegalovirus inclusion bodies were seen in the pancreas tissue. Although there have been several diagnostic criteria for autoimmune pancreatitis, they are still inadequate. Our case was out of the diagnostic criteria. Although the etiology of autoimmune pancreatitis has not been found yet, cytomegalovirus should be thought and investigated in the etiology.

Key Words: Autoimmune pancreatitis; pancreatic neoplasm; cytomegalovirus

INTRODUCTION

An autoimmune pancreatitis (AP) which mimics pancreas cancer with the signs of obstructive jaundice, enlargement of pancreas, is a pancreatic involvement of systemic fibroinflammatory disease¹.

It's generally confused with pancreas cancer because of common signs like mass in pancreas, obstruction in biliary system, painless jaundice, diabetes, and weight loss; for this reason several unnecessary resections have been performed for AP²⁻⁴. Although several factors like histology of pancreas, imaging studies, serological tests, other organ involvements and response to steroid treatment have been used for differential diagnosis, still diagnostic difficulties exist in %30 of the cases.

The criteria used in the diagnosis of AP were published from Korea, Italy, Japan and Mayo Clinics^{5,6}.

In this study, we reported a patient who had mass in the pancreas with inappropriate findings with the AP criteria mentioned in the literature, but diagnosed as AP and cytomegalovirus inclusion bodies were encountered in pathological examination after Whipple procedure.

CASE REPORT

Eightythree-year old male patient came to our clinic with the symptoms of weight loss, painless jaundice and loss of appetite for 4 months. Total bilirubin 18 mg/dL, ALT 154 U/L, AST 34 U/L, GGT 90 U/L, ALP 158 U/L were found. The levels of tumor markers and serum autoimmune markers were in normal ranges. In computer tomography (CT) examination of abdomen, pathological contrast enhancing mass in 1.5 cm diameter with irregular borders was seen in the head of the pancreas (Figure 1). Also dense contrast enhancement in 1

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cm diameter was seen in the tail of the pancreas (Figure 2). In CT images of thorax, mass lesion with irregular borders was seen in the right lung.

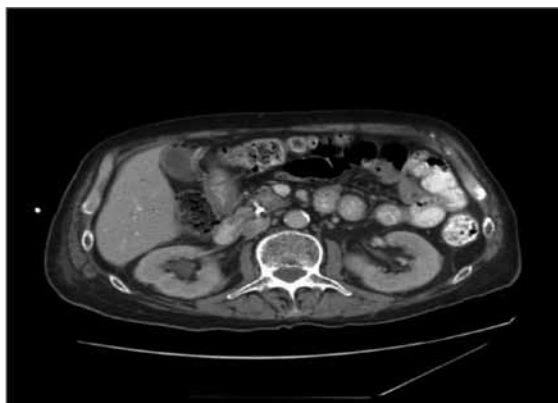


Figure 1. Pathological contrast enhancement with irregular borders and 1.5 cm diameter in the head of pancreas in evaluation of computed tomography



Figure 2. Dense contrast enhancement with 1 cm diameter in the tail of pancreas in evaluation of computed tomography. There is no edema and duct enlargement in pancreas

Endoscopic retrograde cholangiopancreatography (ERCP) showed narrowed distal choledoch which is 1.5 cm in length and starting 1 cm away from the ampulla vateri and dilated choledoch behind the narrowed portion. The level of serum IgG4 was 60 mg/dL (0-125 mg/dL). In positron emission tomography, low attenuation (SUV max: 2.1) was seen in the lesion of lung whereas local low dose pathologic attenuation (SUV max: 3.1) was seen in the lesion in distal choledoch. The lesion in lung was pleuritis and organized pneumonia with areas of fibrosis. As the symptoms, radiological findings, laboratory results and the lack of extrapancreatic autoimmune findings did not support the diagnosis of AP, the patient underwent total pancreatectomy and Roux-N-Y hepaticojejunostomy for suspicion of pancreas cancer (PC) following the informed consent form. In the pathological evaluation of the pancreas, autoimmune pancreatitis with diffuse plasma cells were seen (Figure 3).

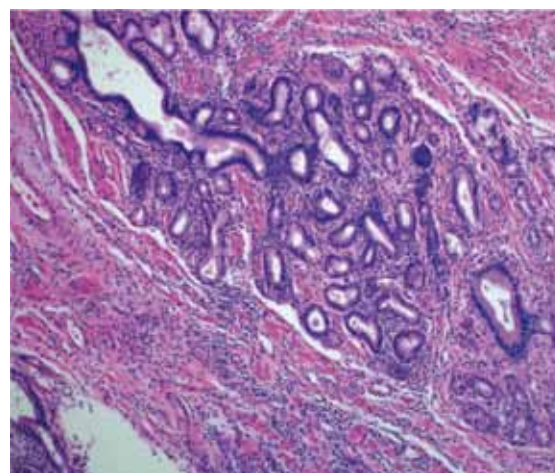


Figure 3. Dense lymphoproliferative infiltrations in the pathological evaluation of pancreas. (H/E staining, X100)

Also cytomegalovirus inclusion bodies were prominent in the pancreas tissue (Figure 4). The patient died because of the intrabdominal sepsis and pulmonary embolism on the 20th day of the surgery.

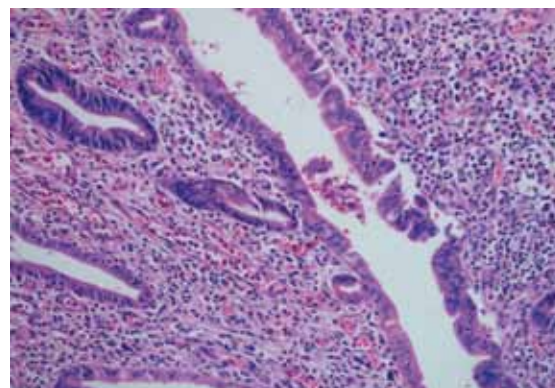


Figure 4. Cytomegalovirus inclusion bodies are seen in the pathological evaluation of ampulla of the pancreas. (H/E staining, X100)

DISCUSSION

Autoimmune pancreatitis is a type of chronic pancreatitis which has histological findings like dense lymphoplasmocytic infiltrations, interstitial fibrosis, periductal inflammation in pancreas¹.

As AP is frequently seen with accompanying systemic autoimmune diseases like rheumatoid arthritis, sjogren syndrome etc. (20-56%), it might be a form of systemic autoimmune disease⁶⁻⁹.

The etiology has not been clear. Increasingly published cases showed geographic distribution^{5,6}.

Although AP is frequently seen with systemic disease and high IgG4 levels in Japan, these features are rare in European countries⁶. These differences have led different diagnostic criteria. However histological criteria, high serum levels of

IgG4, autoimmune markers, radiologic findings and response to steroid treatment are common criteria^{5,6}.

It has been shown that only clinical findings were insufficient to differentiate PC and AP³⁻⁴.

Jaundice, mild abdominal pain, weight loss, and diabetes which are the most frequent signs and symptoms of AP but are also common in pancreas cancer, too. Serologic tests like serum gamma globulin, IgG4, ANA, AMA, ASMA, romatoid factor, antilactoferrin antibody and anticarbonic anhydrase antibody-II can be used for differential diagnose for AP. The existance of IgG4 in AP is 64%, 71% and 94% in the studies performed in UK, USA and Japan, respectively. The sensitivity and spesificity of IgG4 are 76% and 93% respectively⁴. Serum IgG4 higher than 140 mg/d L and serum Ca 19-9 level below 55U/L are suggestive for AP rather than PC. However Ca 19-9 might be high in AP patients, too. The rate of increased serum Ca 19-9 levels in the study performed in Turkey is 70%^{4,9}. Also it was shown that there was a correlation between the levels of IgG4 and severity of disease³.

The levels of serum IgG4 decrease with the treatment of AP. However normal serum levels of IgG4 were found in 24% of AP patients¹.

Increased levels of IgG4 is characteristic for AP but not diagnostic. The radiologic findings of AP are diffuse or local pancreas enlargement, irregularities in main pancreatic ducts, stenosis in distal choledoch and rarely calcsifications^{5,6}. Diffuse enlargement and a capsule like image around pancreas are important for the differantiation from a PC. Appereance of normal pancreas can be seen in 10% of cases with AP³.

All of the cases presented in the studies in our country were accompaning with pancreas mass^{4,9}.

Accompanying extrapancreatic organ diseasesas with AP are renal pathologies (interstitial nephritis), sclerosing cholangitis, sclerosing silioadenitis, retroperitoneal fibrosis, proximal extrahepatic strictures and ulserative colitis.

Although none of these pathologies were seen, there was pleuritis in our case. Pleuritis might be the extrapancreatic involvement of AP. Thirty percent of the patients with AP were unable to be diagnosed by mentioned criteria. At that time lymphoplasmocyst infiltration shown by biopsy is helpful. Biopsy is a prefered method for diagnosis of AP in criteria. However biopsy wasn't preferred in our case because of strong evidences about the cancer and the location of masses in the tail of pancreas.

Response to a steroid treatment can be tried in patients who don't fullfil the AP criteria with typical radiological findings. However our case had pneumonia. An endoscopic ultrasonography (EUS) might have given information about lesion. But it's a subject of future study to evaluate AP with EUS.

Autoimmune pancreatitis which is rarely seen in our country has different diagnostic criterias in different geographic regions. However the cases presented previously in our country didn't fulfill the mentioned criterias exactly, like our case. This showed us that there had been still some deficiencies in diagnostic criteria. CMV infection is shown in our case which hasn't been shown before. CMV infection can be a triggering factor in some autoimmune diseases¹⁰.

Both autoimmune antibodies and organ involvement of CMV infections can be a factor for autoimmune diseases. This effect might be triggering, starting, or aggravating factor of autoimmune diseases. CMV infection has not been shown in AP before, but CMV has been shown to be the reason for diabetes after transplantation¹¹.

Although the lack of association between AP and varicella zoster was showed, CMV hasn't been shown¹¹. CMV infections can affect the pancreas. Although there's possibility for coincidental AP and CMV infection, this should be investigated. Future studies are needed to rule out the relation between CMV and AP in large series.

Conflict of interest statement: None declared.

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