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Mediastinitis secondary to acute pancreatitis[☆]

Mediastinitis secundaria a una pancreatitis aguda

Dear Editor,

Acute pancreatitis is a serious pathology that can be associated with thoracic complications, fundamentally with pneumonia, pleural effusion and more rarely enzymatic mediastinitis. Of this latter situation, there are few cases reported in the literature. Due to the important morbidity and mortality of mediastinitis and its limited frequency, we present this clinical case.

A 56-year-old male patient, diagnosed with necrotic pancreatitis at his area hospital. After a poor evolution, and with the diagnostic suspicion of mediastinitis on computed tomography (CT), the patient was transferred to our hospital. Initially, as there was no presentation of mediastinal collections, it was decided to initiate conservative treatment with empirical antibiotic therapy. Two days later, the follow-up CT showed an increase in mediastinal fat, mediastinal collections with air content, pericardial and bilateral pleural effusion (Fig. 1). Given the clinical and radiological findings, it was decided to operate. We performed median sternotomy, extirpating the necrotic mediastinal fat, debriding and draining the existing mediastinal collections while draining the bilateral pleural and pericardial effusion. Culture of the drained material was positive for *Candida parapsilosis* and *Pseudomona aeruginosa*.

Postoperative evolution was torpid, with dehiscence and exudate with purulent appearance through the surgical wound, due to which it was decided to operate once again, with drain-lavage of the mediastinum, leaving an open sternotomy for local treatment.

After serial cultures of the surgical wound with no germs isolated and without complications for 2 months, we decided to close the sternotomy using the transposition of the major pectoral muscles. The patient recovered and was discharged 17 days after this last surgery.

Follow-up detected a pancreatic tumor 6 months later. During surgery, multiple hepatic, peritoneal and epiploic metastases were discovered. The patient died months later.

Within the thoracic complications of pancreatitis (15-50% of cases), the most frequent is pneumonia with pleural effusion. What is less common is pancreatic pseudocyst with mediastinal extension, thoracopancreatic fistula and, even more uncommon,

mediastinitis secondary to pancreatitis. Only 4 cases have been published of this latter complication. 1,2

The pathogenic mechanism of this type of mediastinitis seems to be the leakage of pancreatic secretions and their ascent through the esophageal or aortic hiatus to the mediastinum.¹ In the case of our patient, necrotic pancreatitis could have caused the erosion of the diaphragmatic parietal peritoneum and allowed the intrathoracic propagation of the pancreatic enzymes.

In a patient with pancreatitis with the appearance of dyspnea, thoracic pain, fever, cyanosis, tachycardia, acute heart failure or a syndrome of the upper vena cava, an intrathoracic complication should be suspected. In our case, the pancreatitis led to respiratory failure, requiring hospitalization in the intensive care unit, and the mediastinal and pleural affectation was observed on CT.

As for the treatment of this type of mediastinitis, all the previously published cases referred the need for surgery using drainage and debridement, as was carried out in the patient that we present. The torpid evolution required open sternotomy to allow for local cleansing and dressing for several weeks until the resolution of the symptoms.

After our experience and the review of the limited bibliography, we would like to conclude by recommending the inclusion of mediastinitis in the differential diagnosis when given suspicion of pancreatitis with the appearance of respiratory symptoms. Due to the high morbidity and mortality of this type of mediastinitis, we recommend aggressive treatment with antibiotic therapy and surgical debridement in addition to exhaustive clinical and



Fig. 1. CT image showing mediastinal widening, collections with air content, pericardial and bilateral pleural effusion and compression atelectasis.

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radiological follow-up in order to evaluate the evolution of the disease.

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Bilateral Pulmonary Nodules Due to Brucellosis☆

Nódulos pulmonares bilaterales por brucelosis

Dear Editor:

Brucellosis is a zoonosis that is endemic of rural areas of the Mediterranean area, Asia, Africa, Central and South America that mainly affects the reticuloendothelial and osteoarticular systems (liver, spleen, bone marrow). Fever is the most characteristic sign, while lung affectation is very rare.

We present the case of a 40-year-old patient, an active smoker and farmer who worker as a shepherd for years. He came to the emergency department due to angina thoracic pain with neither fever nor respiratory semiology. ECG and cardiac markers were normal. After the appearance of bilateral pulmonary nodules on the chest radiograph, CT was performed, showing 3 on the right side and 2 on the left. Their sizes ranged from 2 to 3.5 cm, with well-defined edges, concentric linear calcifications and in contact with the pleura (Fig. 1). They all presented weak metabolic activity on PET. Given these findings, and with negative serology, right video-assisted thoracoscopy was performed as well as resection of one of the nodules. The anatomopathologic analysis reported a well-delimited lung nodule, in onion layers with granulomatous infiltration, giant cell elements and necrotic centers that were

becoming calcified. The diagnosis of brucellosis due to *Brucella melitensis* was obtained from the microbiological culture, and treatment was begun with doxycycline and rifampicin for 6 weeks and gentamicin the first 2. Currently, the patient is asymptomatic.

Brucellosis is produced by an intracellular strict aerobe Gramnegative cocobacillus, four species of which have been recognized as pathogens in humans: B. melitensis, B. suis, B. abortus and B. canis. Recently, two types have been discovered in sea animals, B. pinnipediae and B. cataceae. 1 In Spain, its incidence has dropped drastically since 1984, although it continues to be a health-care problem in areas of the center and south. In 2009, 150 cases were registered, 59 of which were detected in Andalusia (southern Spain). Subjects become infected by the consumption of unpasteurized dairy products, contact with infected animals and, more rarely, inhalation of particles. There have also been cases described of sexual transmission and infection while breastfeeding. Its presentation is that of a systemic disease where fever is the nearly constant sign and, although it can be contracted by air, respiratory affectation is very rare ($<0.5-5\%^2$), even in endemic regions. The maximum reported incidence is 10% of cases.³

The respiratory manifestations do not differ from an infection of the upper airways, and there have been published cases of pneumonia, lung abscess, empyema, pleural effusion, hemoptysis, hilar and mediastinal adenopathies, mediastinitis and pneumothorax, as well as solitary or multiple lung nodules.^{4,5} In reviewing

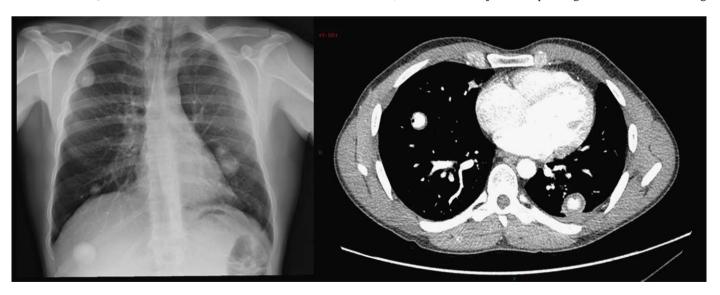


Figure 1. Radiograph and CT with bilateral pulmonary nodules.

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