Pancreatic Pseudocyst*
An Uncommon Mediastinal Mass

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A 33-year-old woman was admitted with a two-month history of general malaise, weight loss, and fever. One year previously, she had required admission to hospital for one week with a diagnosis of acute alcoholic pancreatitis and had apparently remained asymptomatic up to the time of presentation despite continuing to drink alcohol regularly. Physical examination at the time of this admission revealed mild right upper quadrant tenderness. An ultrasound examination of the abdomen had demonstrated minimal hepatomegaly only, and serum amylase was not elevated.

The admitting chest roentgenogram (Fig 1) revealed a 2.5 cm mass in the superior segment of the right lower lobe. Computed tomographic scanning (Fig 2), in addition, demonstrated a homogeneous periesophageal mass extending from the level of the carina into the abdomen. The patient, however, did not complain of dysphagia.

Fine needle aspiration biopsy of the lung lesion was nondiagnostic, and in order to establish a diagnosis, the patient proceeded to have a thoracotomy where a wedge excision of the superior segment mass was performed. The mass was diagnosed as a lung abscess, although no organisms were grown on subsequent culture. At the time of thoracotomy, the posterior mediastinal tissues appeared indurated and biopsy revealed only fibrous tissue.

Following discharge from hospital, the patient remained asymptomatic for several weeks, and then experienced progressive nausea, vomiting, and further weight loss. She was re-admitted ten weeks postoperatively with sudden epigastric pain radiating into the back. Physical examination revealed periumbilical guarding only with no evidence of abdominal mass, and serum biochemistry results were within normal limits.

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Diagnosis: Mediastinal pancreatic pseudocyst

Computed tomography of the chest and upper abdomen (Fig 3) performed on re-admission, demonstrated a large cyst extending into the posterior mediastinum. At subsequent laparotomy, a pancreatic pseudocyst containing 900 ml of clear fluid was drained internally by cystogastrostomy. The patient was discharged on the ninth postoperative day tolerating an oral diet without difficulty.

By virtue of the anatomic structures contained within it, the differential diagnosis of mediastinal masses is extensive, although only foregut duplication, pancreatic pseudocyst, and tumor would present in a manner similar to the case reported. A recent comprehensive review of mediastinal cysts and tumors summarizes current knowledge of mediastinal pancreatic pseudocyst, but is based on less than 20 reported cases, making this an uncommon entity.

It is speculated that the action of pancreatic proteolytic enzymes within the pseudocyst facilitate its extension into the mediastinum along the path of least resistance, and may include the aortic hiatus, the esophageal hiatus, the foramen of Morgagni, or directly through the diaphragm. From within the mediastinum, the pseudocyst may rupture into the pleural space producing a pleural effusion, or may extend further into the retroperitoneal space or neck. The natural history of pseudocyst progression is not entirely clear, however, in view of the small numbers of cases reported, but appears to evolve over a period of at least several weeks. In this case, the interval between computed tomographic examinations of the chest (Fig 1 and 3) was ten weeks, corresponding to the transition from phlegmon to an established mediastinal pseudocyst.

The clinical presentation of this condition is quite nonspecific but often the history of pancreatitis with alcohol abuse, or abdominal trauma—the other etiologic factor, is obtained. Surprisingly, despite extensive mediastinal involvement by the pseudocyst, dysphagia appears to be an uncommon symptom. In view of such nonspecific symptoms and the time at which the patient is seen, diagnosis of this condition may be delayed. Clearly, the lung abscess and nonspecific mediastinal findings on CT scan and at thoracotomy did not permit this diagnosis to be made at the time of our patient's initial presentation. However, the diagnosis was established by follow-up CT scanning, and this would appear to be the diagnostic method of choice.

Although reported experience treating mediastinal pancreatic pseudocysts is limited, it would seem logical to apply the established principles of treatment of an abdominal pancreatic pseudocyst. The most expedient method is, therefore, that of an internal drainage procedure, preferably a cystogastrostomy, performed transabdominally.

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REFERENCES

Figure 3