Pyrexia of unknown origin

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A 32-year-old Indian man presented with a 4-week history of intermittent pyrexia with rigours, associated with malaise and weight loss. Physical examination was normal except for pyrexia without evidence of lymphadenopathy. The white cell count was 13.2 x 10^9/l (3.5–11.0) with increased lymphocytes. Erythrocyte sedimentation rate and C-reactive protein were elevated. Liver function tests showed mildly raised liver enzymes. Blood and sputum cultures were negative for acid-fast bacilli. A computed tomography (CT) scan of the abdomen revealed a multiloculated mass in the head of the pancreas with peripancreatic and mesenteric lymphadenopathy (figure).

Questions

1 Suggest the most likely differential diagnosis in this case.
2 What further investigations should be performed?
Answers

QUESTION 1

Pyrexia with a mass in the head of pancreas can be due to three general categories of disease process (box). Bacterial and viral infections can cause recurrent septicemia. Tuberculosis is still a major cause of pyrexia of unknown origin (PUO) in developing countries and among Asian patients in the UK. Pancreatic abscess secondary to cholangitis or infected phlegmon/pseudocyst from pancreatitis can also cause PUO with a mass in the head of pancreas. Lymphoma frequently produce a prolonged period of fever before other manifestations emerge. The association of lymphoma and PUO has been reported in the literature.

Discussion

Surgical exploration revealed a mass in the pancreatic head, associated with nodal masses in the proximity of the small bowel mesentery and a small shrunken gall bladder. Smears from the specimen were positive for acid- and alcohol-fast bacilli on special fluorescence stain. Histological assessment showed epithelioid granulomas, giant cells and caseation necrosis. Cultures of excised tissue were positive for Mycobacterium tuberculosis.

Tuberculosis of the pancreas is a rare clinical entity even in countries in which abdominal and pulmonary tuberculosis is common. It may manifest itself in various ways such as anorexia, malaise, low-grade fever, weight loss, night sweats, pancreatic mass or abscess, obstructive jaundice, pancreatitis and even malignancy. Due to varied presenting features and the rarity of pancreatic tuberculosis, the differentiation of a granulomatous lesion forming an isolated pancreatic mass from the more common malignant lesion may be difficult.

Final diagnosis

Primary pancreatic tuberculosis.

Keywords: pyrexia of unknown origin; tuberculosis; pancreatic mass

Causes of mass in head of pancreas

- Infections (bacterial, viral, tuberculosis)
- Inflammations (infected phlegmon/pseudocyst, cholecystitis)
- Neoplasia (adenocarcinoma, islet cell tumour, mucinous and serous cystic tumour, metastasis (from melanoma, lung, breast, ovarian), direct extension of tumour, lymphoma

REFERENCES

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