significant findings. Two drains were left—subhepatic and subphrenic, the latter in the thoracic cavity. Ceftriaxone and clindamycin treatment was administered during 5 postoperative days. The patient recovered favorably and without complications and was, therefore, discharged on the eighth day after surgery.

DISCUSSION

Acute cholecystitis is the most frequent complication of cholelithiasis. Currently, early diagnosis with echography and urgent or elective surgery in patients with cholelithiasis or cholecystitis allow avoidance of further complications. Our patient developed cholecyst-thoracic fistula after a longstanding cholecystitis.

Gallbladder perforations with passage of calculi to the duodenum, colon, and peritoneum have been reported previously. On rare occasions, subphrenic abscess may manifest itself clinically in the form of a respiratory infection pattern, either pneumonia or pleural empyema, even with pericarditis, pericardial effusion, and cardiac tamponade. Thoracobiliary fistula has been described in patients with liver hydatidosis.

We have not found in the literature any cases of recurrent pneumonia secondary to cholecystitis. Our patient presented a pattern of right basal pneumonia with an evolution of 1 year, ruling out primary, tumoral, infectious or other suchlike pulmonary pathologic conditions. During the disease's evolution, the positive finding in one of the transtracheal taps of typical digestive system germs led to suspicion of an underlying abdominal pathologic condition. The computed tomography scan could not establish the cholecyst-thoracic fistula, but it showed severe cholecystitis as a possible cause of the definitively repeated right basal pneumonia.

We do not know the exact etiopathogenetic mechanisms in the development of this cholecyst-thoracic fistula. However, we suspect two possible mechanisms: (1) an extrahepatic gallbladder with free fundus and possible contact with the diaphragm, and (2) the infection of the gallbladder (empyema) makes adherences and progressive perforation logical evolutive mechanism.

We stress the need not to defer surgery in patients with complicated cholelithiasis and in those with the possible thoracic complications—effusion, empyema, pneumonia—of advanced cholecystitis.

REFERENCES


Sarcoid Reactions in Cystic Duct Carcinoma*

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A diagnosis of sarcoidosis was evoked in a 61-year-old man on clinical and histologic bases. Nevertheless, a bile duct carcinoma was disclosed in association with the discovery of generalized sarcoid-like granulomas. This is only the third time that such an association has been described. HLA-B8, DR3, and DRw52 antigens were found, suggesting that altered immunologic mechanisms could play a role in the pathogenesis of this sarcoid-like reaction.

(Chest 1994; 106:1304-05)

Key words: carcinoma; concomitant disease; cystic duct; sarcoid reaction

Bilateral hilar adenopathy with diffuse noncaseating epithelioid-cell granulomas is highly suggestive of sarcoidosis. Nevertheless, granulomatous reactions can occur in other disorders, such as malignant tumors. We report a case of cholangiocarcinoma associated with a systemic sarcoid reaction that mimics pulmonary sarcoidosis.

The presence of HLA-B8 and DR3 antigens found in this case report could support the hypothesis that altered immunologic mechanisms may play an important role in the pathogenesis of this sarcoid-like reaction. High levels of tumor necrosis factor and interleukin 2 were found and could account for the development of such granulomas.

CASE REPORT

A 61-year-old man experienced fever, a 10-kg weight loss during the last 6 months, night sweats, weakness, and abdominal pain. Gastrointestinal investigations, including upper and lower endoscopy, abdominal ultrasound, and computed tomography (CT scan) were normal except for slight intrahepatic biliary duct dilatation. Chest radiograph (Fig 1) and CT scan revealed bilat-
eral hilar and paratracheal adenopathy. A transbronchial lymph node biopsy specimen and several biopsy specimens of bronchial mucosa revealed the presence of noncaseating epithelioid-cell granulomas. The bronchoalveolar lavage was, however, paucicellular. Because the aspartate aminotransferase level was abnormal, a percutaneous liver biopsy was performed, also revealing noncaseating granulomas. Extrinsic allergic alveolitis was considered unlikely because of lack of appropriate exposure history and negative serologic tests for farmer’s and bird fancier’s lung. The serum angiotensin-converting enzyme level was within the normal range. Despite the unexplained abdominal pain, a diagnosis of sarcoidosis was made. Treatment with 1 mg/kg of prednisone was prescribed, but little improvement was noted. As cholestasis was noted 6 weeks later, a second thoracoabdominal CT scan was performed that revealed liver infiltration by a tumor mass extending from the hepatic duct. A second percutaneous liver biopsy was performed, and the specimen revealed a bile duct carcinoma. The final diagnosis was diffuse sarcoid reaction associated with neoplasm. The HLA determination revealed B8, DR3, and DRw52 haplotypes. The levels of tumor necrosis factor and interleukin 2 in blood were respectively 61 fmol/ml (normal value, 30 to 50 fmol/ml) and 45 pg/ml (normal value <20 pg/ml).

**DISCUSSION**

The incidence of sarcoidosis is about 2 to 10 new cases per 100,000 examinations and the prevalence is 40 per 100,000. The incidence of bile duct tumors is about 0.01 percent. An unrelated association of both diseases is, therefore, highly improbable. Moreover, the bile duct carcinoma was diagnosed by abdominal CT scan 6 weeks after the discovery of hilar adenopathy on the chest x-ray film. Thus, the systemic disorders found in this case report can be reasonably considered as the prior manifestations of the bile duct tumor. Sarcoidosis is a multisystemic disease of unknown etiology, characterized histologically by epithelioid-cell granulomas without caseation. However, various etiologic factors can stimulate sarcoid-like granulomas, and their histologic appearance does not differ from that of sarcoidosis granulomas. In fact, granuloma is a nonspecific response to a number of irritants: infections, chemicals, allergens, inflammations, autoimmune states, enzyme defects, neoplasms, or other miscellaneous factors. In 1917, Herxheimer first recognized a sarcoid-like reaction as a tumor-related tissue response. The distinction between local sarcoid reactions and systemic sarcoidosis is currently recognized, as well as the entities of sarcoidosis and sarcoid reactions related to solid tumors and malignant lymphomas. Association of sarcoid reactions with bile duct carcinoma was previously twice reported: in the first case report, granulomas were present only in the liver. The second patient, with a 13-year history of ulcerative colitis, presented several similarities with our observation: in addition to bile duct carcinoma, the liver histologic features exhibited noncaseating granulomas and features compatible with sclerosing cholangitis. As in our case report, a chest x-ray film showed mediastinal and bilateral hilar adenopathies with sarcoid granulomas at biopsy.

The pathogenesis of granuloma is not yet well understood. The sarcoid reactions to malignancies seem to be independent of local and direct interactions between the tumor and the immunologic cells. Soluble antigens may be involved, eliciting an immunologic hypersensitivity reaction leading to the formation of noncaseating epithelioid cell granulomas. It is noteworthy that one of the two other sarcoid reactions associated with bile duct carcinoma, previously reported by Van Steenbergen et al, presented with HLA-B8. In our patient, HLA-B8 and DR3 were present. Both have been associated with immunologic dysfunction, alone or together, such as primary biliary cirrhosis, primary sclerosing cholangitis, ulcerative colitis, and sarcoidosis. Furthermore, an increased frequency of both HLA-B8 and HLA-DRw52A antigens was described in primary sclerosing cholangitis. The secretion of cytokines could be involved as a stimulating factor that induces a granuloma reaction.

Sarcoidosis is a disease without clinical or histologic specificity. Clinicians need to bear in mind that the clinical presentation of sarcoidosis may be very diversified and that other disease states may masquerade as sarcoidosis. Therefore, any unusual sign, such as our patient’s abdominal pain or advanced age at the onset of the illness, must lead the physician to search for another cause for the granulomas.

**REFERENCES**