Symptomatic cholelithiasis may be the first sign of sarcoidosis

INTRODUCTION
Sarcoidosis is a chronic, multisystemic inflammatory disorder of unknown etiology. The disease is more commonly seen in females than males and may affect all organs at various rates. Although the disease mostly affects the pulmonary and lymphoid systems, it rarely affects the gastrointestinal system. Sarcoidosis of the gallbladder and lymph node associated with the gallbladder is an extremely rare clinical entity.

Herein, we aimed to report a case of newly diagnosed sarcoidosis with lymph node involvement associated with the gallbladder.

CASE PRESENTATION
A 69-year-old female patient presented to our clinic with symptoms of nausea, vomiting, and right upper quadrant pain. She had type 2 diabetes mellitus and a history of operation for left breast carcinoma and endometrial carcinoma. She did not receive chemotherapy or radiotherapy in the postoperative follow-up period. The patient was admitted to the emergency department twice due to biliary colic symptoms. Gastroscopy was performed because of the history of oncological operation. Gastroscopy was unremarkable and showed no pathology. Abdominal ultrasonography showed multiple stones of 3-4 mm in the gallbladder lumen. Laboratory tests were unremarkable with normal range liver function tests and normal white blood cell levels. The patient was scheduled for elective surgery due to symptomatic cholelithiasis. Preoperative chest X-Ray was normal without parenchymal lesions or hilar/mediastinal lymphadenopathy. Laparoscopic...
Lymphadenitis was identified at the lymph node of the gallbladder. Acid-resistant bacilli (AFB) were negative. The findings suggested sarcoidosis. Postoperative, the patient was referred to the pulmonary disease unit.

**DISCUSSION**

Sarcoidosis is a multisystemic noncaseating granulomatous disease with a prevalence of 10-20 per 100,000 individuals and frequently occurs between the second and fourth decades of life. The most affected system in sarcoidosis is the lung, with lymph node involvement. Less than 4% of sarcoidosis cases have gastrointestinal and hepatic involvement. Sarcoidosis of the gallbladder and its associated lymph node has been reported in the literature by eight case reports. Among these eight cases, only two of them

![Figure 1. Sarcoidosis of the Gallbladder Lymph Node.](image-url)
presented gallbladder-associated lymph node involvement, as in our case1.

About half of patients with gallbladder sarcoidosis are usually asymptomatic and often diagnosed accidentally by other methods, such as chest x-ray and histopathological examination, when investigating another cause3. Symptomatic patients may present different symptoms mimicking benign or malignant conditions such as biliary colic, chronic or acute cholecystitis, chronic cholestasis, biliary fibrosis/cirrhosis, portal hypertension, Budd Chiari syndrome, obstructive jaundice3,4. Inflammation involving the biliary tree and lymph nodes may also cause extrinsic compression of the cystic canal and consequently increased jaundice. In addition, sarcoidosis may often mimic cholangiocarcinoma due to the strictures in the extrahepatic ducts3,4.

The diagnosis of gallbladder sarcoidosis should be supported by laboratory findings. Diseases that may cause non-caseified granuloma should be considered and excluded in the differential diagnosis. As in our case, tuberculosis must be excluded by performing an acid-fast bacilli (AFB) test through Ziehl-Neelsen staining.

Although in our case the patient was diagnosed after cholecystectomy operation with postoperative specimen pathology, the diagnosis of sarcoidosis is established by clinical, radiologic, and histopathologic findings.

Prednisolone is the most prominent drug for the treatment of systemic sarcoidosis. However, there is limited literature based on case reports about the specific treatment of gallbladder sarcoidosis3,4. Laparoscopic or conventional cholecystectomy is the treatment of choice for patients with gallbladder sarcoidosis.

**CONCLUSION**

Cholecystectomy must be performed to patients with symptomatic cholelithiasis with or without a previous diagnosis of sarcoidosis. Symptomatic cholelithiasis may be the first sign of sarcoidosis. It is important to follow up on the postoperative specimen material.

**Informed Consent**

Informed consent was obtained from the patient for publication of this case report.

**Conflict of Interest**

No conflict of interest was declared by all the authors.

**Financial Disclosure**

The authors declare that this study has received no financial support.

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