Sir, Inflammatory pseudotumor (IP) is a rare mass lesion with histological features of non-specific inflammation and mesenchymal repair. IP was originally described in the lung, but it has been observed in the respiratory tract, gastrointestinal tract, orbit, soft tissues, spleen, lymph nodes, heart, spinal meninges, and mesothelial membranes [3, 7, 12, 14, 16, 19]. IP of the spleen is a very rare tumor-like lesion [3] that mimics a malignant neoplasm in the spleen both clinically and radiologically [1, 16, 17, 19].

We observed a 47-year-old female patient, who was admitted to the Internal Medicine Department of the Kocaeli Social Security Hospital with complaints of having epigastric and left hypochondriac pain for about 15 days. The patient had been hypertensive for about 5 years and had been on medical treatment. Her past medical history was unremarkable except for a benign ovarian cyst excised 10 years previously.

Physical examination revealed epigastric and left hypochondriac tenderness on palpation. There was no hepatosplenomegaly. An upper gastrointestinal (GI) endoscopy revealed antral gastritis. Upper abdominal ultrasonography, performed because of left upper quadrant tenderness, revealed a splenic mass 4.2 cm in diameter. The mass showed heterogeneous echogenicity and some calcifications. A computed tomography (CT) scan showed a well-demarcated hypodense mass with some lobulations. The lesion was interpreted as hemangioma.

The patient underwent splenectomy, and a spleen measuring 10.0×8.0×7.0 cm and weighing 225 g was removed. Its capsule was smooth and regular. The lesion, a well-circumscribed mass measuring 4.0×3.0×3.0 cm, lay 2 mm under the capsule near the splenic hilus. The cross section was tannish–pink colored, soft, and lobulated (Fig. 1). The splenic parenchyma was otherwise normal in appearance.

Microscopic examination revealed an inflammatory lesion, sharply demarcated from the adjacent splenic parenchyma and consisting of spindle cells and inflammatory cells. Masson’s trichrome stain revealed mature collagen formation. Large areas of coagulative necrosis were present. Calcifications (Fig. 2), erythrocyte extravasations, and hemosiderin pigment deposition, confirmed using Perl’s iron stain, were observed in many areas. The inflammatory cell infiltrate was composed mainly of lymphocytes and plasma cells (Fig. 3). No granuloma formation or foreign body reaction was observed.

Histochemical stains for fungi and acid fast bacilli failed to reveal any organisms. Immunohistochemical studies (kappa and lambda immunoglobulin light chains, CD3, and CD20) showed that the plasma cells and the lymphocytes were polyclonal and that T lymphocytes...
predominated. The tumor-free splenic parenchyma showed follicular hyperplasia and arteriosclerotic vascular changes.

IP of the spleen is a rare mass-like lesion of unknown etiology [1, 5]. It may present clinically with non-specific symptoms, such as abdominal pain/discomfort or it may be detected as an incidental finding. Its differential diagnosis poses considerable problems for the clinician, the radiologist, and the pathologist with its rarity in the spleen, non-specific radiological and clinical features, and variable histopathological patterns [16]. The histopathological differential diagnosis of IP in the spleen includes lymphoreticular malignancies (lymphoplasmocytic lymphoma, solitary plasmocytoma, Hodgkin’s disease, and sclerosing lymphoma), inflammatory variant of malignant fibrous histiocytoma, splenic hamartoma, organizing hematoma, and sarcoid-like process [8, 16, 17].

The histopathological examination of our case revealed that the lymphocytes were mature and polyclonal, and there were no features suggestive of lymphoreticular malignancy. Due to the hypocellular nature of the lesion, the lack of storiform pattern, and atypia, the diagnosis of an inflammatory variant of malignant fibrous histiocytoma was excluded. There were no features suggestive of sarcoidosis or splenic hamartoma. Immunohistochemically, polyclonality of the plasma cells and the lymphocytes is the most helpful diagnostic criterion [5, 8, 12, 14, 17]. The small lymphocytes in splenic IP cases were found to be predominantly T lymphocytes [17].

In the differential diagnosis of a focal splenic mass with calcification, splenic cyst, hamartoma, hemangioma, lymphangioma, and plasmocytoma should be considered radiologically [7]. In our case, because a well-demarcated splenic mass with calcification was detected upon USG examination, a splenic hydatid cyst was suspected; this lesion is still very commonly seen in the spleen in Turkey. Because of CT scan analysis, the lesion was interpreted as hemangioma. Finally, the histopathological examination revealed IP of the spleen.

Someron has grouped IPs into three histopathological subtypes: (1) xanthogranulomatous type, (2) plasma cell granuloma type, and (3) sclerosing pseudotumors. Various combinations of these three subtypes may be seen within a single lesion [16]. As our case showed prominent mature collagen formation and no xanthogranulomatosus component and was poor in plasma cells, we considered it a sclerosing type of IP. IPs of the spleen may invade surrounding structures, especially the pancreas [3, 8, 16]. The mass in our case was 2 mm below the splenic capsule, but the capsule was smooth and intact. The hilus and surrounding structures were uninvolved.

IP of the spleen is a rare lesion of controversial etiology [8]. Cotelingam and Jaffe suggested that the initial pathologic event might be parenchymal necrosis with hemorrhage [3]. We also observed necrosis and old hemorrhage reflected by hemosiderin pigment deposition in our case. Ineffective antibiotic therapy, a specific unidentified infectious agent, and an abnormality of lipid metabolism in the etiology and pathogenesis of IP of the spleen have also been postulated [1, 16]. These hypotheses have not been confirmed either in the previously reported cases or in our case.

To the best of our knowledge, 28 cases of IP of the spleen have been published in the English literature to date. The clinical and pathologic features of the reported cases are summarized in Table 1. In addition to these, a distinct IP case predominantly involving the heart, together with intrasplenic arteries, was detected (not included in Table 1) [14].

In conclusion, IP of the spleen is a benign reactive process of unknown etiology. It is more likely an exaggerated hypertrophic scar response to local tissue injury rather than manifestation of a systemic disorder. Splenectomy is diagnostic and curative [5, 19]. Further investigations are needed to shed more light on the etiology of this rare tumor. The long-term follow-up of patients with IP showed the benign nature of this lesion [3, 16, 17, 19].