



RESEARCH ARTICLE

SPLenic PSEUDOCYSTS

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ABSTRACT

Introduction: Splenic pseudocysts are extremely rare and seen in <1% of splenectomies. Approximately 800 cases have been reported in the literature. It is important to distinguish splenic pseudocysts from more common lesions such as hydatid cyst and spleen abscess. In this study, we aimed to evaluate splenic pseudocysts which are rare and difficult to diagnose.

Material & Methods: Patients with splenic pseudocysts identified in histopathological examination between January 2010 and January 2016 were retrospectively reviewed. All patients evaluated for demographic datas, outcomes of imaging studies and the development of postoperative complications.

Results: In the histopathological examination, splenic pseudocysts were detected in 5 patients. The average size of the cysts was 8 cm. Two of the patients were asymptomatic with incidentally detected cysts, while left upper quadrant pain was found in 3 patients. None of the patients had a history of trauma. In the ultrasonographic examination, well-circumscribed and homogeneous content cysts were found in the spleen in all patients. In the computed tomography, thick-wall, capsulated and well-circumscribed cysts were identified. Laparoscopic splenectomy was performed in 4 patients, while 1 patient underwent splenectomy with left subcostal incision. The mean follow-up duration was 26 months. No additional complications occurred during follow-up.

Conclusion: Splenectomy is the gold standard treatment modality in splenic pseudocysts. However, partial splenectomy, percutaneous aspiration and cystectomy have also been described in the treatment of pseudocysts.

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INTRODUCTION

Splenic pseudocysts are extremely rare and seen in <1% of splenectomies. Approximately 800 cases have been reported in the literature [1]. Splenic cysts are usually classified as true (primary) cysts and pseudocysts. Whereas, primary cysts are classified as parasitic and non-parasitic cysts based on the etiology. Pseudocysts do not contain epithelium. In general, these cysts are posttraumatic or inflammatory/degenerative[2,3]. They are extremely rarely seen. Clinically most of them are asymptomatic. It is important to distinguish splenic pseudocysts from more common lesions such as hydatid cyst and spleen abscess[1]. In this study, we aimed to evaluate splenic pseudocysts which are rare and difficult to diagnose.

MATERIAL AND METHODS

Patients with splenic pseudocysts identified in histopathological examination between January 2010 and January 2016 were retrospectively reviewed. Pre-operative 2 week before, all patients were vaccinated against *Streptococcus pneumoniae*, *Haemophilus influenzae type B* and *Neisseria meningitidis* for immunization. Preoperative single dose cefazolin 2 gr and postoperative two dose cefazolin 1 gr were administered. All patients evaluated for demographic datas, outcomes of imaging studies and the development of postoperative complications.

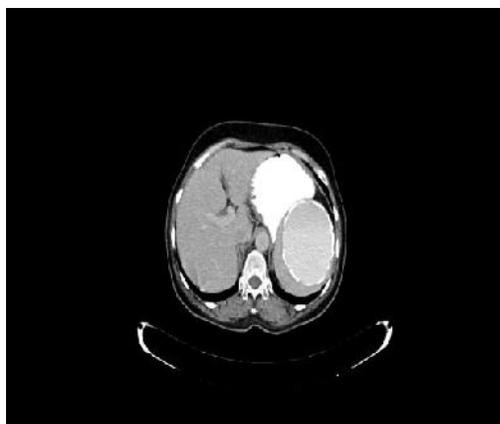
RESULTS

In the histopathological examination, splenic pseudocysts were detected in 5 patients. The average size of the cysts was 8 cm (range 6 - 12 cm). Two (40%) of the patients were

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asymptomatic with incidentally detected cysts, while left upper quadrant pain was found in 3 (60%) patients. None of the patients had a history of trauma. In the physical examination, 3 patients (60%) were found to have palpable welling in the left upper quadrant. The laboratory examination was non-significant in all patients. In the ultrasonographic examination, well-circumscribed and homogeneous content cysts were found in the spleen in all patients. In the computed tomography (CT), thick-wall, capsulated and well-circum scribed cysts were identified (Image 1). Laparoscopic splenectomy was performed in 4 (80%) patients, while one patient (20%) underwent splenectomy with left subcostal incision. Preoperative, partial splenectomy was planned in 1 patient, but splenectomy was carried out since partial splenectomy was not found to be appropriate for the operation. Postoperative 1 patient developed atelectasis in the lung and received medical therapy. The mean follow-up duration was 26 months. No additional complications occurred during follow-up.



DISCUSSION

Today, splenic cysts are known as a rarely seen clinical condition with an incidence of 0,07% in general population. These cysts are classified as primary and secondary cysts depending on whether the cellular epithelial layer is present or not [1,2,4]. Clinically as the cysts size increases it may cause symptoms by compressing adjacent organs [5,6]. The symptoms are associated with the size and localization of the cyst. The most common clinical findings in the case of symptomatic cyst include abdominal pain, nausea and vomiting due to the compression on the stomach [7]. The etiology of pseudocysts is not fully understood and it is thought to be due to hematoma secondary to blunt abdominal trauma. In this study, none of the patients had a history of trauma. Diagnosis of splenic pseudocysts is most commonly established incidentally during imaging studies performed because of other reasons.

Other complications may include infections, bleeding and rupture. In this study, none of the patients was operated due to complications. In general, these cysts are seen as homogeneous cystic lesions on ultrasonography and as well-circumscribed lesions on contrast enhanced CT. In this study, well-circumscribed and homogeneous content cysts were identified in the ultrasonographic examination in all patients. Thick-wall, capsulated and well-circumscribed cysts were found in CT studies. Splenectomy is the gold standard treatment modality in splenic pseudocysts [8]. However, partial splenectomy, percutaneous aspiration and cystectomy have also been described in the treatment of pseudocysts.

Conflict of Interest

No conflict of interest was declared by the authors.

Financial Disclosure

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Ethics committee approval was not required because the study was retrospectively performed.

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