

# Isolated Amoebic Abscess of Spleen

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## ABSTRACT

Amoebic liver abscess is the most common extra intestinal manifestation of amebiasis. Amoebic abscess of spleen is a rare disease and cases of isolated abscess of spleen have rarely been reported in literature. We report a case of 52-year female, who presented with history of high grade fever, weight loss and malaise. Her ultrasound showed a well-defined, thin-walled hypoechoic lesion in spleen and High Dose Contrast Enhanced Computer Tomography (CECT) abdomen revealed a well-defined cystic lesion within the spleen with thin enhancing rim. Ultrasound guided aspiration of splenic abscess was done and showed clusters of trophozoites in the wall of the cavity. She received treatment for amebiasis for one month and reported with resolution of symptoms. Post treatment repeat ultrasound also revealed resolution of abscess.

**Key Words:** Abscess, *Entamoeba histolytica*, Extraintestinal amebiasis, Spleen, Trophozoites.

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## Introduction

Each year about 50 million patients develop amoebic dysentery from *Entamoeba histolytica* infections; 40,000 to 110,000 die of the disease annually.<sup>1</sup> Amoebic liver abscess is the most common extraintestinal manifestation of amebiasis. Extrahepatic amoebic abscesses have occasionally been described in the lung, brain, and skin and presumably result from hematogenous spread. Abscess of the spleen is a rare disease. Isolated amoebic abscess of spleen has been reported scarcely in literature and remains a diagnostic dilemma.<sup>2</sup> The presentation is nonspecific and diagnosis is often delayed. The timely and widespread use of imaging methods facilitates early diagnosis and guides treatment, thus improving the prognosis. Most of the patients have associated recognized risk factors that compromise the immune system, trauma and intravenous drug abuse in addicts.

The surgical treatment by splenectomy is usually the first choice of treatment.<sup>3</sup>

## Case Report

A 52-year female presented with history of high grade fever, weight loss and malaise for 1 month. She was a known case of Diabetes Mellitus for the past 16 years and hypertension for 6 years. She had past history of stroke 6 months back. General examination showed high grade fever (103° F) and weakness of right side of the body. Abdominal examination was unremarkable. Her baseline laboratory (complete blood count, renal and liver function tests) were normal except for low haemoglobin (9 g/dl) Ultrasound abdomen was done which showed a well-defined, thin-walled hypoechoic lesion in spleen. It measured 3.0 x 3.2 cm with few internal echoes and thin septations. CECT abdomen showed a well-defined cystic

lesion within the spleen with thin enhancing rim. Ultrasound guided aspiration of splenic abscess was done with a specimen taken from the margin of the cavity. It showed anchovy sauce colored fluid which was sent for histopathology and culture and sensitivity. The fluid culture was negative for the microorganism but clusters of trophozoites were seen embedded in the wall of the cavity. She received treatment for amebiasis for 1month. After resolution of symptoms and completion of medical treatment, her ultrasound was repeated. It showed normal spleen with resolution of abscess.

## Discussion

Amoebiasis is an infection, usually of the colon, caused by *Entamoeba histolytica*. It is endemic in all parts of the world where sanitation is poor. Amoebic dysentery is the usual consequence of infection and amoebic liver abscesses, not uncommon and usually result from haematogenous spread of parasite along the portal vein. Amoebic abscesses of the spleen, however, have only been rarely reported. They result from direct or haematogenous spread of pathogens, or when a haematoma becomes infected.<sup>4</sup> Most of the patients present with recognized risk factors including conditions that compromise the immune system, such as endocarditis, diabetes mellitus, congenital or acquired immunodeficiency and the administration of immunosuppressive medication. Trauma and intravenous drug abuse in addicts are additional predisposing factors for splenic abscesses Solitary splenic abscess, however, with lack of any obvious risk factors is very rare. The clinical manifestations of splenic abscesses usually include left upper abdominal pain, fever, nausea, vomiting and anorexia. Splenic abscess is a rare entity, with a reported frequency of 0.14-0.7% in autopsy series. Its reported mortality rate is still high, up to 47%, and can potentially reach 100% among patients who do not receive antibiotic treatment. Appropriate management can decrease the mortality to 14%.<sup>3</sup>

The timely and widespread use of imaging methods facilitates early diagnosis and guides treatment, thus improving the prognosis. Ultrasound is used as a preliminary diagnostic modality, which is often followed by CT scan. However, ultrasonography cannot discriminate between abscess and infarct in some cases, while computed tomography is the modality of choice.<sup>2</sup> Splenic abscesses appear as focal areas of low attenuation with no inflammatory rim Traditional treatment for splenic abscess has been splenectomy and antibiotic therapy but image-guided percutaneous aspiration and drainage can also be considered.

US-guided percutaneous aspiration of splenic abscesses is a safe and effective procedure. It can be used as a bridge to surgery in patients who are critically ill or have several comorbidities. Percutaneous aspiration may allow complete non-operative healing of splenic abscesses or temporize patients at risk for surgery.<sup>5</sup>

While many advocate image-guided drainage, several publications suggest splenectomy having a better outcome than percutaneous drainage or intravenous antibiotics alone.<sup>6</sup>

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