

# The Case with Liver Abscess Misdiagnosed as Metastasis

## Metastaz Ön Tanılı Karaciğer Absesi Olgusu

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### SUMMARY

Liver abscess and metastases may look similar on imaging studies. A wrong diagnosis may lead to complications and false therapies. Radiologic images should always be interpreted along with the patient's history and clinical status. In this case report, we aim to share a liver abscess case which was falsely diagnosed as liver metastasis. Our objective is to underline the importance of evaluating radiological findings along with the patient's history.

**Anahtar kelimeler:** Abscess; metastasis; biopsy; pus; liver; sonography

### Introduction

Liver abscess and metastases may look similar on imaging studies (1,2). A wrong diagnosis may lead to complications and false therapies. Patients with long standing immunosuppressive therapies are candidates for infections. They are also candidate for secondary malignancies. It is important to differentiate the 2 entities as their treatment are surely quite different.

### Case Report

A 57 -year-old man was admitted to our hospital presenting with right upper quadrant abdominal pain. He had 20 years history of ankylosing spondylitis disease for which he had been having immunosuppressive therapy. His physical examination revealed right upper quadrant tenderness. His temperature was 36,8 °C. His laboratory tests were unremarkable except leukocytosis with a white blood cell count of 16.9 x 10<sup>3</sup> /mm<sup>3</sup>. His prothrombin activity was less than the lower normal limit (67.6 % ) and INR was more than the upper normal limits (1.21). The patients was referred to radiology department for sonographic and Magnetic Resonance Imaging (MRI). Sonographic exam was performed with esaote MyLab70x vision and MRI was performed with a is 1.5 Tesla magnet (25 mT/m: Magnetom Vision Plus; Siemens, Erlangen, Germany). He

### ÖZET

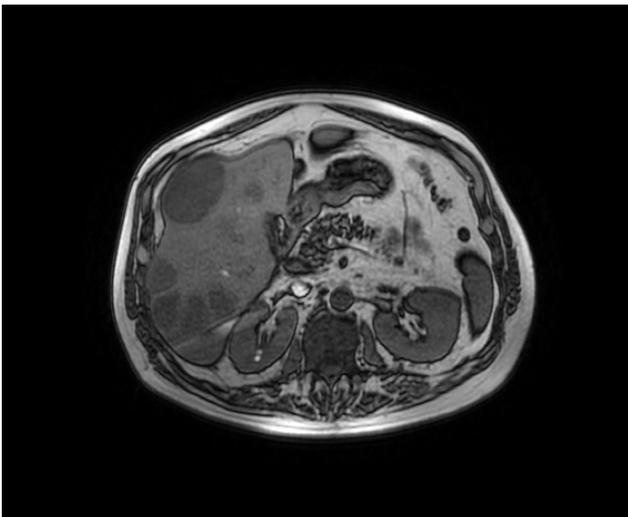
Karaciğer absesinin ve metastazların görüntüleme bulguları benzer olabilir. Yanlış tanı yanlış tedavi ve komplikasyona yol açabilir. Radyolojik görüntüler hastanın anamnezi ve klinik durumu ile beraber değerlendirilmelidir. Bu olgu sunumunda; karaciğer metastazları olarak yanlış tanı alan karaciğer absesi olgusunu paylaşmak amacındayız. Radyolojik bulguların olgunun anamnezi dikkate alınarak değerlendirilmesi gerektiğinin altını çizmeyi hedefliyoruz-  
**Keywords :** Abse; metastaz; biyopsi; pü; karaciğer; ultrason

was also scheduled for percutaneous liver biopsy and control sonography. His liver biopsy was sonography guided with 18 G automatic-needle. On the sonographic examination, there were multiple round hypoechogenic solid lesions in the liver. Apart from these lesions; liver parenchyma, intrahepatic bile ducts, common bile duct were normal. Contrast enhanced MRI revealed multiple hypointense round solid lesions with peripheral contrast enhancement (Fig.1). The patient was pre-diagnosed with liver metastases. He was scheduled for gastroscopy and colonoscopy for detection of the primary tumour. He was also scheduled for liver biopsy for tumour characterisation. The biopsy was done from the largest lesion which was bulging from the liver capsule. (Fig.2). During the procedure, intraperitoneal rupture of this lesion occurred and a collection developed. (Fig.3). No allergic reaction or hematoma occurred. The following day, histopathologic result was compatible with infection. He was discontinued his steroid treatment for ankylosing spondylitis and wide spectrum antibiotics were given. On the control sonography and MRI after treatment, the lesions almost completely disappeared which proved the diagnosis. (Fig.4). The perihepatic pus collection became smaller. As the lesions regressed, the patient was continued for his regular ankylosing spondylitis

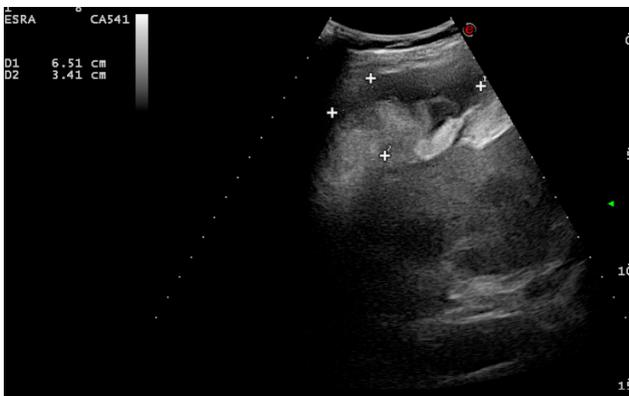
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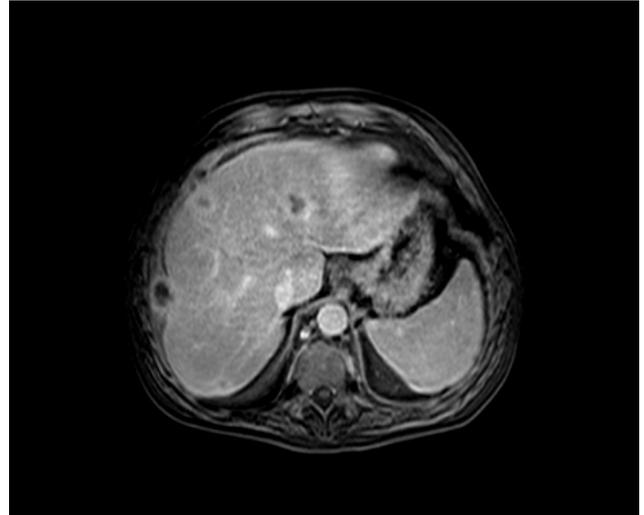
**Figure 1.** Axial contrast enhanced T1WS. Multiple round solid lesions with peripheral contrast enhancement.



**Figure 2.** Axial 2D dual echo MRI. The dominant lesion is bulging from the liver capsule



**Figure 3.** Sonographic evaluation of the perihepatic pus collection.



**Figure 4.** Axial contrast enhanced T1WS. The lesions almost disappeared.

### Discussion

It might be difficult to differentiate liver abscess from liver metastases when the lesions are multiple (1,2,3). Patient history and the clinical status is important for diagnosis. Liver abscess must be kept in mind when the patient is receiving immunosuppressive therapy. Immunosuppressive therapy can also cause secondary malignancies. So it is essential to differentiate the 2 entities. Their radiological findings on sonography, CT and MRI can look very similar in some cases. They both can have cystic-necrotic central areas and they both can have peripheral contrast enhancement on post contrast series. This makes the diagnosis harder. Diffusion MRI and dynamic contrast imaging can be helpful for differentiating pyogenic abscess and metastases. In difficult cases percutaneous liver biopsy might be needed. It can be performed with the guide of sonography as in our case. During biopsy procedure, attention must be paid for the subcapsular lesions especially hydatid cysts which can rupture into the peritoneal cavity and cause anaphylactic reactions (4,5). Correct treatment can be started confidently after the histopathology results.

In conclusion, it is important to combine radiological evaluation along with the patient's history in case of inability to differentiate abscess and metastases in the liver.

### Kaynaklar

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