

**Yaşlı hastada eş zamanlı kist hidatik ile hepatoselüler kanser: Vaka Sunumu****Concurrent Hydatid Cyst with Hepatocellular Cancer in elderly patient: A Case Report**

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**Özet**

Karaciğer primer kanseri ve kist hidatik birlikteliği çok nadirdir. Enfeksiyöz ajanlara gösterilen inflamatuvar cevaplar karsinogenezi tetikleyebilir veya ilerlemiş kanserlerde gelişen immün baskılanma fırsatçı enfeksiyonlara yol açabilir. Helmint enfeksiyonları sırasında Th1 ve Th2 hücre aktivasyonunu tetikleme mekanizmaları tam olarak bilinmemektedir. Bu makalede 83 yaşında erkek hastada saptanan karaciğer kist hidatiği ile birlikte tespit edilen hepatoselüler karsinoma olgusu sunulmuştur.

**Anahtar Kelimeler:** Kistik ekinokokkus, karaciğer kanseri, immün cevap

**Abstract**

Coexistence of primary cancer of liver and hydatid cyst is quite rare. The inflammatory responses given to infectious organisms can promote carcinogenesis or immunosuppression in advanced cancers may favor opportunistic infections. The mechanism triggering Th1 and Th2 cell activation during helminth infections remain unclear. Here in, we report a 83-year old man with hydatid disease of liver associated with hepatocellular carcinoma.

**Keywords:** Echinococcus granulosus, liver cancer, immune response

**INTRODUCTION**

Hydatid disease is a serious infestation caused by the tapeworm Echinococcus granulosus. Although it is seen in all the world, it is endemic in the Middle East in Greece in Turkey. (1). Hepatocellular carcinoma is one of the common cancers. Cirrhotic liver structure is an important basis for hepatocellular cancer (2). Cases of hydatid disease and hepatocellular carcinoma are rarely seen together (1, 3, 4). Humoral and cellular immune system has an important role for hydatid cyst infection. Echinococcus granulosus may

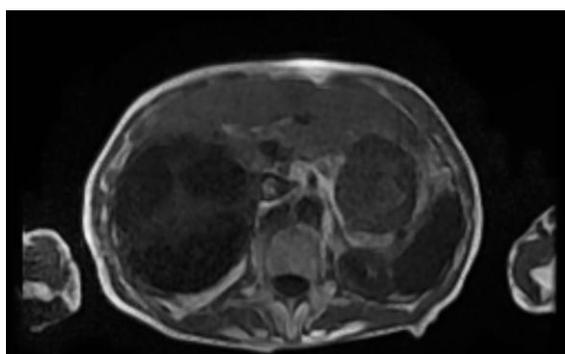
play a triggering role for hepatocellular carcinoma (5).

**CASE PRESENTATION**

An 83 year-old man with abdominal pain referred to our surgical center. He complained of weight loss and loss of appetite. Blood analysis revealed a white blood cell count of 11000/ $\mu$ L, initial hemoglobin level of 12.8 g/dL and platelet count of 193000/ $\mu$ L. The laboratory tests for blood glucose, electrolytes, urea, creatinine, and amylase were normal, but the liver function tests were moderately

increased. Hbsag 3867 S/CO, anti HCV, anti HBs were negative.

In abdominal ultrasonography, the contours of the liver were regular, its size was normal and parenchymal echogenity was homogeneous. A 55x72 mm sized semi solid heterogeneous iso-hyperechoic semi solid hydatid cyst was detected in the 2-3 segment localization of the liver which had exophytic extensions in segment 3 level including an echoic cystic areas inside, and a 140x146 mm sized hydatid cyst was detected in the segment 5-6 and partially 7-8 with thick septae. In the axial T1A MRI imaging, a hypointense lesion was detected in the right lobe of the liver with an appearance compatible with isointense septae, and a heterogeneous iso-hypointense lesion was detected in the left lobe (Picture 1).

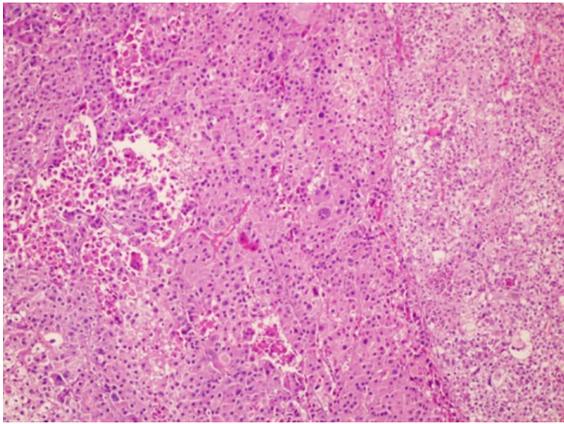


**Pic. 1** Axial T1A MRI imaging, a hypointense lesion in the right lobe of the liver with an appearance compatible with isointense septae, and a heterogeneous iso-hypointense lesion in the left lobe.

In the T2A MRI imaging, the lesion in the right lobe was observed to be a

hyperechoic cystic lesion with isointense septae and the lesion in the left lobe revealed heterogeneous iso-hyperintensity. The dynamic liver MRI imaging revealed isointense contrasting of the septae of the lesion with in the right lobe in the arterial phase, and heterogeneous iso-hyperintense contrasting of the lesion with in the left lobe . In the venous phase, significant wash-out is present in the cystic lesion within the right lobe, and heterogeneous wash-out is present in the solid lesion within the left lobe .

Laparotomy under general anesthesia was scheduled. In the exploration filled nearly complete in the right lobe, cystic lesion was present. Moreover, liver tissue was observed in cirrhotic state and granular appearance. While cystectomy drainage performed cyst in the right lobe lesion we detected the left lobe lesions spontaneous rupture, we tried the frozen section looking from spontaneous rupture necrotic tissue, and have received a diagnosis of hepatocellular carcinoma and necrosis(Figure 1). Patient refused evaluation and treatment of oncologic postoperative care. Patient left the followup.



**Fig.1** Hepatoid tumour cells showing eosinophilic cytoplasm and severe nuclear atypism (H&E x 100)

## DISCUSSION

In cancer and chronic infections, the study of the inflammatory process, it is mentioned that the shape of the immune response and cause progression or regression of infection and cancer (5). The liver is the organ most frequently seen hydatid disease. More frequent in the right lobe. From asymptomatic status to anaphylaxis and even fatal results may occur. Patients usually present with right upper quadrant pain and a bloated feeling. Hepatomegaly, palpable exophytic lesions are frequently detected examination (4). Hydatid cysts usually remain clinically silent for life. Diagnosis is often due to incidental findings on imaging studies. In recognition of hydatid cyst, ultrasound, CT imaging are important tools. Indirect hemagglutination, liver function tests, are valuable laboratory evaluations. When it becomes symptomatic fever, jaundice,

anaphylaxis may occur. Today the current treatment model still is surgery. It is applied with success in laparoscopy. Percutaneous drainage finds among treatment options (6).

Hepatocellular carcinoma is ranked 5th among the common cancers. Cirrhosis back ground plays an important role for hepatocellular carcinoma development. Viral hepatitis and alcohol are the most important causes of cirrhosis (4). Fibrosis and regeneration is the most important pathophysiological indicators of cirrhosis (2).

Hydatid disease and hepatocellular cancer progresses on a chronic basis. When considering both diseases chronic process, echinococcus can cause cancer in the formation or progression (5). Echinococcus granulosus can be a trigger for hepatocellular carcinoma (7,8). Parasitic infections, are known to play an important role in suppression the immune system and chronicity of infection (7, 9).

Hydatid liver cancer and show similar symptoms. Both Echinococcus granulosus liver cancer and spend a long asymptomatic period. Echinococcus has been shown to affect the important tumor markers of liver cancer plasma levels of galectin-3 and sE-cadherin. However sE-

cadherin can be used as a marker for liver cancer with echinococcus infection (10).

In experimental studies in echinococcus granulosus and breast cancer model, echinococcus infection in the liver by suppressing the immune system, was determined to become a target of metastasis. Anti-inflammatory effects of IL-10 secretion are inhibit Th1 protective effect, it is shown that the chronic infection caused (5).

Parasitic infections in chronic inflammatory process, for the T cell-mediated immune system, with a significant decrease the tumor suppressor effect was observed and could become the primary target of both metastasis. On the liver tissue infected by hydatid cyst, accelerate the formation of metastasis and primary cancer has concluded (5).

## CONCLUSION

Coexistence of hydatid cyst and hepatocellular carcinoma should be kept in mind in those patients with unequivocal liver lesions. Radiographic image studies may be useful to describe nature of the lesions.

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