

mortality rate (1-3) and in quite a few articles, mortality is reported to associate with HHV-6, which is a "harmless" virus in normal individuals (4). Although there was no sign of HHV-6 activation in our patient during or after corticosteroid the-

rapy, in cases with high serum titers, it might be mortal under immunosuppressive drugs. Therefore, screening for HHV-6 in patients with DRESS syndrome before administration of immunosuppressive drugs should always be on the agenda.

## REFERENCES

1. Bocquet H, Bagot M, Roujeau JC. Drug-induced pseudolymphoma and drug hypersensitivity syndrome (Drug Rash with Eosinophilia and Systemic Symptoms: DRESS). *Semin Cutan Med Surg* 1996; 15: 250-7.
2. Michel F, Navellou JC, Ferraud D, et al. DRESS syndrome in a patient on sulfasalazine for rheumatoid arthritis. *Joint Bone Spine* 2005; 72: 82-5.
3. Bouyssou-Gauthier ML, Bedane C, Boulinguez S, Bonnetblanc JM. Photosensitivity with sulfasalazopyridine hypersensitivity syndrome. *Dermatology* 1999; 198: 388-90.
4. Caselli E, Di Luca D. Molecular biology and clinical associations of Roseoloviruses human herpesvirus 6 and human herpesvirus 7. *New Microbiol* 2007; 30: 173-87.

Zeki YEŞİLOVA<sup>1</sup>, Murat KANTARCIOĞLU<sup>1</sup>,  
Cemal Nuri ERÇİN<sup>1</sup>, Mükerrer SAFALIOĞLU<sup>2</sup>,  
Güldem KILÇILER<sup>1</sup>, Erol KOÇ<sup>3</sup>, Murat ATLI<sup>4</sup>,  
Ahmet UYGUN<sup>1</sup>

*Departments of <sup>1</sup>Gastroenterology, <sup>2</sup>Pathology, <sup>3</sup>Dermatology, and <sup>4</sup>Internal Medicine, Gülhane Military Medical Academy, Ankara*

## Spontaneous cutaneous fistula of infected liver hydatid cyst

Cilde spontan fistüle enfekte karaciğer kist hidatiği

*To the Editor,*

Hydatid disease is a parasitic infection usually caused by *Echinococcus granulosus*. It is endemic in the Middle East, South America and the Mediterranean region. Patients with hydatid disease are mostly asymptomatic until incidentally diagnosed or complications occur (1). A 93-year-old female patient was admitted to the emergency service with the complaints of fever, abdominal pain, nausea, vomiting, and yellowish green drainage from the abdominal wall for the last two days. Her physical examination revealed a skin defect located 4-5 cm superior to the umbilicus and approximately 1 to 2 cm in size; a whitish membranous structure was seen protruding from the defect (Fi-

gure 1). She had a history of cholecystectomy 40 years before.

Laboratory examination revealed the following: hemoglobin (Hb): 9.8 g/dl, white blood cell (WBC) count: 18400/mm<sup>3</sup>, platelet count: 4350000/mm<sup>3</sup>, and indirect hemagglutination test (IHAT): 1/2400. Other biochemical parameters were normal. On abdominal computed tomographic examination, a hypodense irregular mass of 6 to 9 cm in size at liver segment 4 was seen, which contained a calcific area of 2 to 4 cm consistent with hepatic cyst hydatid. There was also an incision tract from the cyst to skin.

**Address for correspondence:** Savaş YAKAN  
255 Sokak No: 1/7 35270 Hatay, Izmir, Turkey  
Fax: + 90 232 261 44 44  
E-mail: savasyakan@gmail.com

**Manuscript received:** 25.12.2008 **Accepted:** 08.07.2009

doi: 10.4318/tjg.2009.0033



**Figure 1.** Whitish membranous structure protruding out of the skin defect.

With these findings, it was planned to hospitalize the patient with the diagnosis of infected hepatic hydatid cyst with cutaneous fistulization. The patient and her relatives did not give consent for surgical treatment so she was discharged with medical treatment of 10 mg/kg/day albendazole.

Complications are observed in one-third of patients with liver hydatid cyst. The most common

complication is the rupture of the cyst, either internally or externally, followed by secondary infection, jaundice and an anaphylactic reaction (1). Spontaneous cutaneous fistulization is a very rare complication of liver hydatid cyst (2). There are only five case reports in the literature (3-7). Our case is the first in the literature of a spontaneous cutaneous fistula of an infected liver hydatid cyst.

A viable hydatid cyst is a space-occupying lesion with a tendency to grow. In less-restricted areas, the symptoms depend on the site and size of the cyst. Another consequence of cyst enlargement is that it can rupture. Viable hydatid cysts can rupture into physiologic channels, free body cavities or adjacent organs. The other factor responsible for fistulization of hydatid disease is inflammation. Inflammation leads to necrosis and causes fistulization (2).

Treatment depends on stage, localization, size, and complications of the cysts. Chemotherapy should be the first choice for disseminated disease and for patients who have a prohibitively high risk for surgery. Appropriate surgical treatment of hydatid cysts of the liver depends on communication of the cyst and the bile duct. If the cyst is localized peripherally, total cystectomy or hepatic resection is recommended because of the low rate of recurrence. However, partial cystectomy and omentoplasty are the most frequently used operations for intraparenchymal hydatid cysts.

In conclusion, it should be kept in mind that hepatic cyst hydatid can result in complications like cutaneous fistulization, even in later stages.

## REFERENCES

1. Sayek I, Onat D. Diagnosis and treatment of uncomplicated hydatid cyst of the liver. *World J Surg* 2001; 25: 21-7.
2. Milicevic MN. Hydatid disease. In: Blumgart LH, Fong Y, eds. *Surgery of the liver and biliary tract*. 1st ed. London: W.B. Saunders Company Ltd., 2000; 1167-204.
3. Golematas BC, Karkanias GG, Sakorafas GH, et al. Cutaneous fistula of hydatid cyst of the liver. *J Chir* 1991; 128: 439-40.
4. Harandou M, el Idrissi F, Alaziz S, et al. Spontaneous cysto-hepato-bronchial fistula caused by a hydatid cyst. Apropos of a case. *J Chir* 1997; 134: 31-4.
5. Grigy-Guillaumot C, Yzet T, Flamant M, et al. Cutaneous fistulization of a liver hydatid cyst. *Gastroenterol Clin Biol* 2004; 28: 819-20.
6. Bastid C, Pirro N, Sahel J. Cutaneous fistulation of a liver hydatid cyst. *Gastroenterol Clin Biol* 2005; 29: 748-9.
7. Sakorafas GH, Stafyla V, Kassaras G. Spontaneous cyst-cutaneous fistula: an extremely rare presentation of hydatid liver cyst. *Am J Surg* 2006; 192: 205-6.

Savaş YAKAN<sup>1</sup>, Mehmet YILDIRIM<sup>1</sup>,  
Ahmet ÇOKER<sup>2</sup>

*Department of <sup>1</sup>Surgery, İzmir Bozyaka Education and Research Hospital Ministry of Health, İzmir*

*Department of <sup>2</sup>Surgery, Hepatopancreatobiliary Division, Ege University School of Medicine, İzmir*