lymphocyte cell infiltration and squamous cell proliferation (Figures 2c, d, e). No abnormalities of other digestive tract sites including the terminal ileum were found through further endoscopy. The patient was diagnosed as isolated esophageal CD. The postoperative course was uneventful.

Esophageal CD is rare, with an adult prevalence of 0.2–3% in patients with coexisting ileocolonic disease, and very few cases of isolated esophageal involvement have been reported (1,2). Due to lack of presentations of other digestive tract sites and that little consideration of isolated esophageal CD is given, the accurate diagnosis and treatment are often made rather late in its course when severe dysphagia secondary to stricture or other complications has occurred, necessitating surgical intervention3,5,6. Previous studies have reported fistula drainage to the pleural cavity, bronchus, esophageal wall, and even the stomach (3,5,7,8). Our case had an esophageal fistula to the mediastinum due to end-stage isolated esophageal CD. Esophagectomy was performed in a timely manner, when the mediastinal infection was limited. This case highlights features of the end stage of the disease, revealing that early discovery along with surgical intervention may bring promising results.

REFERENCES

1. Naranjo-Rodríguez A, Solórzano-Peck G, López-Rubio F, et al. Isolated oesophageal involvement of Crohn's disease. Eur J Gastroenterol Hepatol 2003; 15: 1123-6.
2. Anton G, Decker G, Loftus EV Jr, et al. Crohn's disease of the esophagus: clinical features and outcomes. Inflamm Bowel Dis 2001; 7: 113-9.
3. Ohta M, Konno H, Kamiya K, et al. Crohn's disease of the esophagus: report of a case. Surg Today 2000; 30: 262-7.
4. Remes-Troche JM, Argote-Greene M, Rubio-Tapia A, et al. Progressive dysphagia caused by isolated esophageal involvement of Crohn's disease. Inflamm Bowel Dis 2005; 11: 515-7.
5. Franklin RH, Taylor S. Nonspecific granulomatous (regional) esophagus. J Thorac Surg 1950; 19: 292-7.
6. Davidson JA, Sawyers JL. Crohn's disease of the esophagus. Am Surg 1983; 49: 168-72.
7. Dancygier H, Frick B. Crohn's disease of the upper gastrointestinal tract. Endoscopy 1992; 24: 555-8.
8. Rholl JC, Yavorski RT, Cheney CP, Wong RK. Esophagogastric fistula: a complication of Crohn's disease. Case report and review of the literature. Am J Gastroenterol 1998; 93: 1381-3.

Wuping WANG[1], Yunfeng NI[1], Changkang KE[1], Hongxia HU[2], Xiaofei LI[1], Qingshu CHENG[1]

Departments of Thoracic Surgery[1] and Pathology[2], Tangdou Hospital, The Fourth Military Medical University, Xi'an, China

Albendazole-induced toxic hepatitis: A case report

Albendazole bağlı bir toxic hepatitis

To the editor,

Echinococcus or hydatid cyst (HC) is a parasitic disease, that is among the important health problems of developing countries (1,2). According to data from the Turkish Ministry of Health, there are 2000 patients per year and HC case incidence is 6.3 / 100,000 in Turkey (3).

Albendazole is an anti-helmintic agent with a wide anti-parasitic spectrum and is indicated for usage in HC. Its side effects include nausea and vomiting, constipation, vertigo, headache, hair loss, and itching. It is metabolized in the liver. The most common reason necessitating withdrawal or cessation of the drug is major hepatic toxicity (4).

We report herein a case with rarely published toxic hepatitis induced by administration of albendazole treatment for HC.

Address for correspondence: Ramazan GÖZÜKÜÇÜK
Hisar Intercontinental Hospital, Infectious Diseases,
İstanbul, Turkey
Phone: + 90 216 524 13 00
E-mail: rgozukucuk@gmail.com

Manuscript received: 25.07.2011 **Accepted:** 19.12.2011

Turk J Gastroenterol 2013; 24 (1): ?-??
doi: 10.4318/tjg.2013.0426

A 28-year-old male patient diagnosed with allergic dermatitis and bronchitis was under follow-up at Hisar Intercontinental Hospital, Pulmonary Diseases Department. His complaints had increased within the last year, so thorax computed tomography (CT) scan was requested. The patient was then directed to the General Surgery Department due to the demonstration of multiple cysts in the liver. In his detailed questionnaire, it was revealed that he had no history of alcohol consumption, had taken minimal anti-allergic drugs and had no significant family history. No pathologic finding was found on his physical examination. All dermatologic and other systemic examinations were normal.

Results of the laboratory tests were as follows: alanine aminotransferase (ALT) 21 IU/L, alkaline phosphatase (ALP) 154 IU/L, lactate dehydrogenase (LDH) 400 IU/L (reference value: 240-480), white blood cell (WBC) 7430/µL, hemoglobin (Hb) 14.6 g/dl, platelets 339000/µL, and hydatid cyst-specific immunoglobulin (Ig)E 0.76 (++), and indirect hemagglutination (IHA) test was positive at 1/512 titer. HC was diagnosed, 800 mg/day albendazole was administered, and surgery was planned. On the 20th day prior to surgery, preoperative control tests were performed, and revealed: aspartate aminotransferase (AST) 659 IU/L, ALT 968 IU/L, ALP 209 IU/L, gamma glutamyl transpeptidase (GGT) 108 U/L, LDH 667 IU/L, prothrombin time (PT) 18.1 sec (international normalized ratio [INR] 1.48), activated partial thromboplastin time (aPTT) 41.3 sec, WBC 15400/µL (eosinophils 33%), Hb 12.8 g/dl, and platelets 505000/µL. HBsAg, anti-HCV, anti-HBc IgM, and anti-HAV IgM tests were negative.

In whole-abdomen ultrasound study, hepatic enlargement and multiple cysts were observed. The liver parenchymal structure was normal. On CT scan, six cystic masses, with the largest measuring 111 x 75 mm, were found in the 8th hepatic segment. Drug toxicity was diagnosed and albendazole was stopped. All hepatic enzyme levels decreased in the following laboratory tests and the patient was operated. Cystotomy + drainage were applied to five of the cysts. For the remaining cyst, a scolicidal (10% batticon (polyvinylpyrrolidone + iodine) solution) was injected into the cyst under operative ultrasound. Albendazole was re-administered postoperatively. On the third day of the therapy, liver enzymes became elevated and albendazole administration was once again stopped. The patient was re-scheduled for follow-up without medical therapy. On follow-up tests, a decrease in liver enzyme levels to normal reference values was observed.

It has been reported that hepatic enzyme levels can be elevated in patients with HC. Some publications also reported elevations in ALP levels (5). However, in our case, liver enzymes were normal before therapy and were found elevated after administration of albendazole. Using drugs is recommended to both sterilize the cyst preoperatively and to optimize postoperative treatment results. Albendazole is an anti-helmintic agent with a broad anti-parasitic spectrum and is used for the medical therapy of HC. As it metabolizes in the liver, liver function tests might be elevated rarely during therapy (5,6).

Although there are no certain criteria for the diagnosis of toxic hepatitis, the most commonly used method is the semi-qualitative scale of Roussel Uclaf Causality Assessment Method of the Council for International Organizations of Medical Sciences (RUCAM/CIOMS). In this system, and according to results of hepatic damage level and toxic agents, there are defined degrees as “high probability”, “probable”, “possible”, and “not probable” (7). In our case, the RUCAM/CIOMS score was 9, and therefore, the case was defined as toxic hepatitis with “high probability”.

Dermatologic findings of “allergic skin” can associate rarely with HC as a clinical manifestation. In our case, the initial complaint was allergic rush, and the definitive diagnosis was reached with further investigations.

No similar case has been reported from our country to date, and these cases are seldom seen in the international medical literature. In our country, Şahin et al. (5) published a study on 120 cases, and they showed no significant side effect that required stopping the drug. In the study done by Morris and Smith (8), they reported abnormal results in hepatic function tests in 7 of 40 patients who received albendazole therapy. The damage in 6 of these 7 patients was defined as “hepatocellular”. Another study by Morris et al. (9) reported elevation in liver enzymes in 5 of 32 albendazole-administered patients, and they stopped the drugs. After re-administration of albendazole, 3 patients had recurrence of elevated liver enzyme levels in their study.

Toxic hepatitis due to albendazole, which is an agent with a broad anti-parasitic spectrum and an indication for usage in HC and many parasitic diseases, is rare, and inquiry regarding the drugs being used must be considered in cases with suspected toxic hepatitis.

REFERENCES

1. Demirbaş S, Sinan H, Kurt Y, et al. [Primary intramuscular hydatic disease localized in a lower extremity: a case report]. Turkiye Klinikleri J Med Sci 2005; 25: 593-6.
2. Şenyüz OF, Yeşildag E, Celayir S. Albendazole therapy in the treatment of hydatid liver disease. Surg Today 2001; 31: 487-91.
3. Yazar S, Özkan AT, Hökelek M, et al. [Cystic echinococcosis in Turkey from 2001-2005]. Türkiye Parazitoloji Dergisi 2008; 32: 208-20.
4. Lee WM. Drug-induced hepatotoxicity. N Engl J Med 2003; 349: 474-85.
5. Şahin EM, Yüksek YN, Dağlar G, et al. [Diagnosis and treatment of hydatid cysts: results of 120 patients]. Trakya Univ Tip Fak Derg 2008; 25: 6-14.
6. Moore TA. Agents active against parasites and Pneumocystis. In: Mandell, Douglas, and Bennett's principles and practice of infectious diseases. 7th ed. Philadelphia: Elsevier, 2010; 644-6.
7. Choi GY, Yang HW, Cho SH, et al. Acute drug-induced hepatitis caused by albendazole. J Korean Med Sci 2008; 23: 903–5.
8. Morris DL, Smith PG. Albendazole in hydatid disease-hepatocellular toxicity. Trans R Soc Trop Med Hyg 1987; 81: 343-4.
9. Morris DL, Dykes PW, Marriner S, et al. Albendazole -- objective evidence of response in human hydatid disease. JAMA 1985; 253: 2053-7.

Ramazan GÖZÜKÜÇÜK[1], İlker ABCI[2], Mustafa GÜÇLÜ[3]

Departments of [1]Infectious Diseases, [2]General Surgery, [3]Gastroenterology, Hisar Intercontinental Hospital, İstanbul