Gastroenterología y Hepatología 45 (2022) 134–138

Gastroenterología y Hepatología

www.elsevier.es/gastroenterologia

SCIENTIFIC LETTER

Infectious mononucleosis with atypical presentation☆

Una presentación poco común de la mononucleosis infecciosa

We report the case of a 27-year-old man allergic to dexketoprofen with no medical history of note, who visited his health centre with odynophagia and a fever for the past 10 days. Given that bacterial pharyngotonsillitis was suspected, he was given empirical antibiotic therapy with amoxicillin 500 mg every eight hours. Three days later, his initial signs and symptoms had not improved, and he had developed jaundice, choluria, nausea and diarrhoea with no pathological signs, whereupon he visited the accident and emergency department. He denied using other medicines, recreational drugs or herbal medicines. Physical examination revealed: a fever of 39 °C, jaundice, painful hepatomegaly, bilateral laterocervical oedema and oropharyngeal erythema. Blood testing yielded the following findings: leukocytosis 25.90×10^9/l with lymphocyte predominance (16.20×10^9/l), total bilirubin 15.5 mg/dl (direct bilirubin 9.43 mg/dl), aspartate aminotransferase (AST) 211 U/l, alanine aminotransferase (ALT) 280 U/l, alkaline phosphatase (ALP) 443 U/l, gamma-glutamyl transferase (GGT) 314 U/l, lactate dehydrogenase (LDH) 1,102 U/l and C-reactive protein 24.7 mg/l. Abdominal ultrasound reported hepatomegaly with no focal lesions, splenomegaly measuring 16.7 cm, two enlarged lymph nodes in the hepatic hilum of nonspecific significance and intrahepatic and extrahepatic bile ducts normal in calibre. A decision was made to admit him to gastroenterology. During his admission, he had persistent intermittent fever and developed a morbilliform, maculopapular, erythematous skin rash on his trunk, arms and thighs. Blood cultures were negative. Serology testing for hepatotropic viruses and human immunodeficiency virus (HIV), as well as computed tomography (CT) of the neck, chest and abdomen, ruled out a lymphoproliferative syndrome and revealed enlarged lymph nodes throughout the neck, chest and abdomen (measuring less than 1 cm with no cavitation), homogeneous hepatosplenomegaly and scant ascites. Follow-up laboratory testing four days into the patient's admission showed worsening of his liver panel, with peak total bilirubin 20.38 mg/dl (direct bilirubin 13.3 mg/dl), AST 263 U/l, ALT 294 U/l, ALP 648 U/l and GGT 513 U/l.

Serology testing was positive for Epstein–Barr virus (EBV) anti-viral capsid antigen (VCA) IgM antibodies (>160 U/mL); the rest of the serology testing ordered was negative (hepatitis A virus [HAV], hepatitis B virus [HBV], hepatitis C virus [HCV], hepatitis E virus [HEV], cytomegalovirus [CMV], varicella zoster virus [VZV], herpes simplex virus [HSV], HIV and *Treponema pallidum*). This confirmed a definitive diagnosis of infectious mononucleosis with predominantly hepatic involvement and a skin rash secondary to administration of amoxicillin in a context of acute EBV infection. Symptomatic treatment was administered from the start; ultimately, a decision was made to initiate treatment with intravenous ganciclovir at a dose of 5 mg/kg every 12 h due to the seriousness of the clinical picture. Subsequently, the patient showed rapid clinical and laboratory improvement, with total bilirubin 9 mg/dl (direct bilirubin 6.64 mg/dl), AST 146 U/l and ALT 360 U/l following five days of antiviral treatment, and therefore was discharged after 10 days of admission. Follow-up laboratory testing four weeks after discharge revealed a complete return to normal of the patient's liver panel.

EBV is a widespread herpes virus with an estimated global seroprevalence of 90%–95% in adults.[1] Most cases of EBV infection are asymptomatic; however, the infection may present with the typical triad of fever, pharyngotonsillitis and lymphadenopathy; this is known as infectious mononucleosis.[2] Slight elevation of transaminases is common, but jaundice and cholestasis in this context are rare, having an incidence of less than 5%.[1–3] Rare cases of fulminant liver failure, largely in immunocompromised patients, have been published.[4,5] The pathophysiology of jaundice secondary to EBV infection is not well understood, although it is believed that it may be primarily related to immune-mediated mechanisms.[1,2]

Treatment for infectious mononucleosis is mainly symptomatic.[1,2] The indication for antiviral agents in this condition is not well established due to a lack of evidence of their efficacy.[1,2] However, the literature does feature case reports with severe hepatic involvement that followed a good clinical course subsequent to administration of antiviral agents.[6,7]

In conclusion, EBV infection should be included in the differential diagnosis of acute icteric hepatitis, despite the rarity of this situation. Although there is little evidence, there are several case reports of successful treatment with ganciclovir.

References

☆ Please cite this article as: Puy Guillén A, Andreu Serra H. Una presentación poco común de la mononucleosis infecciosa. Gastroenterol Hepatol. 2022;45:134–135.

1. Khoo A. Acute cholestatic hepatitis induced by Epstein-Barr virus infection in an adult: a case report. J Med Case Rep. 2016;10:75.
2. Kofteridis D, Koulentaki M, Valachis A, Christofaki M, Mazokopakis E, Papazoglou G, et al. Epstein-Barr virus hepatitis. Eur J Intern Med. 2011;22:73–6.
3. Vine L, Shepherd K, Hunter JG, Madden R, Thornton C, Ellis V, et al. Characteristics of Epstein-Barr virus hepatitis among patients with jaundice or acute hepatitis. Aliment Pharmacol Ther. 2012;36:16–21.
4. Shaw N, Evans J. Liver failure and Epstein-Barr virus infection. Arch Dis Child. 1988;63:432–45.
5. Devereaux CE, Bemiller T, Brann O. Ascites and severe hepatitis complicating Epstein-Barr infection. Am J Gastroenterol. 1999;94:236–40.
6. Cauldwell K, Williams R. Unusual presentation of Epstein-Barr virus hepatitis treated successfully with valganciclovir. J Med Virol. 2014;86:484–6.
7. Rafailidis P, Mavros MN, Kapaskelis A, Falagas ME. Antiviral treatment for severe EBV infections in apparently immunocompetent patients. J Clin Virol. 2010;49:151–7.

Anna Puy Guillén*, Hernán Andreu Serra

Servicio de Aparato Digestivo, Hospital Universitario Son Llàtzer, Palma de Mallorca, Balearic Islands, Spain

* Corresponding author.
E-mail address: anna.puyguillen@gmail.com
(A. Puy Guillén).

Mesenteric cyst infected with *Salmonella typhimurium*☆

Quiste mesentérico infectado por *Salmonella typhimurium*

Mesenteric cysts are uncommon intra-abdominal lesions. They account for approximately one out of every 100,000 hospital admissions in adults and one out of every 20,000 hospital admissions in children, with nearly 60% of cases developing before the age of five.[1]

They may be located in any part of the mesentery, from the duodenum to the rectum, but they are most commonly located in the mesentery of the small bowel, in particular the ileum.[2] There is no clear evidence as to their aetiology; hence, they have been attributed to various causes (congenital, neoplastic, acquired or idiopathic). The most recent classification is based on their origin depending on histological and immunohistochemical findings: lymphatic, mesothelial, urogenital, enteric, dermoid or pseudocystic.[3]

There are three main forms of clinical presentation. The asymptomatic form is the most common and is incidentally diagnosed in complementary tests and surgical procedures. The indolent form predominates in adults; the most common symptoms are abdominal pain (80%), distension and an abdominal mass (30%–50%). The complicated form (rupture, infection, obstruction, etc.)[1] predominates in children.

We report the case of a 19-year-old patient with no history of note who visited the emergency department with abdominal pain for the past three days that followed a course consistent with acute appendicitis. Emergency surgery was indicated, yielding the incidental finding of a large mesenteric cyst (Fig. 1A). Laparoscopic appendectomy was performed; the pathology results indicated that the caecal appendix had no histological abnormalities. In the postoperative period, the study was completed with an abdominal computed tomography (CT) scan, revealing a cystic mass measuring 7.7 cm × 10.3 cm × 3 cm in the right flank suggestive of a benign mesenteric tumour (Fig. 1B).

The patient was discharged without incident, then readmitted after 15 days with abdominal pain and persistent fever. A repeat CT scan showed the known mass with complications (Fig. 1C). Percutaneous drainage was performed and a sample of fluid was taken for culture. In the microbiological results, enteric *Salmonella*, subspecies I, serogroup B, was isolated. The patient did not have diarrhoea, nor did he remember any recent prior episodes thereof. His only notable comment was that he had taken a trip to Morocco a month earlier. Given these findings, a stool culture was ordered and came back positive for the same type of bacteria. The strains were serotyped; both were found to belong to the *Typhimurium* serotype. Following clinical improvement and ultrasound, the patient was discharged.

One month later, an elective procedure consisting of laparoscopic removal of the mesenteric cyst was performed. A decrease in size and a significant pericystic inflammatory reaction were observed. On the second day, the patient underwent further surgery for suspected bowel perforation, wherein purulent peritonitis and perforation of the transverse colon were detected. Profuse lavage of the abdominal cavity plus primary wound closure were performed laparoscopically. The patient subsequently followed a favourable clinical course. *Salmonella* was not isolated in the cultures obtained from the resected cyst or in a second stool culture.

The pathology study showed a cystic formation made up of multiple concentric layers, with perforated, abscessed panmural inflammation (Fig. 1D). The immunohistochemistry study was positive for smooth muscle actin and desmin and confirmed a concentric muscle layer, with no traces of epithelial or mesothelial lining observed. These findings were suggestive of an intestinal duplication cyst.

Mesenteric cysts are rare and of varying aetiology. Regardless of their presentation, surgery is the treatment of choice in order to avoid malignant transformation and prevent complications. Cyst aspiration as a sole treatment is not recommended due to high associated rates of recurrence.[3]

☆ Please cite this article as: Nogués A, Aldea MJ, Cros B, Talal I, Yánez C, Blas JL. Quiste mesentérico infectado por *Salmonella typhimurium*. Gastroenterol Hepatol. 2022;45:135–136.