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Correspondence

Pediatric-onset primary biliary cholangitis

To the editor

Primary biliary cholangitis (PBC) is a chronic autoimmune liver disease (AILD) characterized by progressive destruction of the intrahepatic bile ducts, leading to cholestasis, portal inflammation, fibrosis and potentially cirrhosis and liver failure [1]. PBC predominantly affects women in their 50's or 60's [1]. Unlike other AILDs, PBC has rarely been reported in childhood. Based on literature review, there have been only four documented cases of pediatric-onset PBC, diagnosed in four girls [2–4]. To date, the occurrence of PBC in male children has not been reported.

Here we report the case of a 16 years-old boy who was referred to our Centre in 2013 for abnormal liver function tests. He was asymptomatic and his liver enzyme levels at that time were as follows: total bilirubin, 0.70 mg/dL (normal, <1.2); γ-glutamyltransferase (γ-GT), 640 U/L (normal, 10–49 U/L); serum aspartate aminotransferase (AST), 70 U/L (normal, 10–37 U/L); and serum alanine aminotransferase (ALT), 154 U/L (normal, 10–37 U/L). Abdominal ultrasound showed no abnormalities. There was no family history of PBC or related autoimmune diseases. Antimitochondrial antibody (AMA) was positive; serum quantitative immunoglobulins (Ig) showed IgM to be 308 mg/dL (normal, <300 mg/dL), IgG and IgA were both normal. Antinuclear antibody was positive at a titre of 1/320; highly PBC-specific anti-sp100 and anti-gp210 were positive by immunoblot. Smooth muscle antibody, liver/kidney microsomal antibody, and anti-liver cytosol-1 antibody were all negative. Serum α1-antitrypsin, copper, and ceruloplasmin as well as 24 -h urinary copper levels were normal. Serology for hepatitis A, B, and C was negative. Drug-induced hepatotoxicity was excluded through a careful drug history, and there was no history of any alcohol consumption. Magnetic Resonance Cholangiopancreatography was normal. A liver biopsy specimen showed stage I PBC, according to Ludwig classification. The boy was then started on ursodeoxycholic acid 15 mg/Kg/day. Although asymptomatic and despite therapy, one year later liver enzyme levels showed no improvement (total bilirubin, 0.84 mg/dL; γ-GT, 467 U/L; AST, 78 U/L and, ALT, 172 U/L). In 2015, at the age of 18, he was referred to the Hepatology clinic, and by that time he had developed severe pruritus, for which he was started on cholestyramine. Liver enzymes at this point showed biochemical worsening: total bilirubin, 2.99 mg/dL; γ-GT, 849 U/L; ALP, 518 U/L; AST, 165 U/L and, ALT, 296 U/L. Liver biopsy was repeated and showed progression to stage II PBC, at the same time it showed ductopenia. Three years later, and despite compliance with therapy, further clinical and biochemical worsening was observed, prompting a third liver biopsy. At that time total bilirubin level was 9.97 mg/dL; γ-GT, 698 U/L; ALP, 854 U/L; AST, 196 U/L and, ALT, 346 U/L. Serum albumin, clotting factors and platelets were all normal. Abdominal ultrasound was normal. Histological examination showed progression of ductopenia, with no well constituted bile ducts identified, while the degree of fibrosis remained unchanged (Fig. 1). Since then, and despite the absence of cirrhosis, the boy suffered from severe pruritus, weight loss, and progressive icteric cholestasis, prompting referral for liver transplantation.

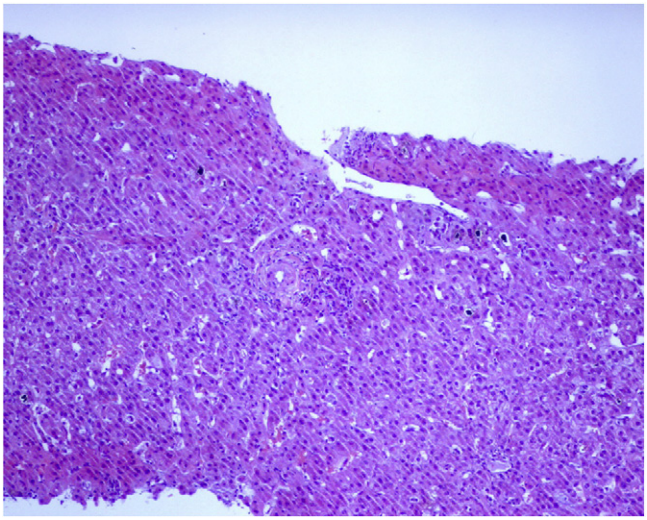

Fig. 1. Liver biopsy specimen taken five years after the initial diagnosis. A morphological picture of ductopenia along with mild portal fibrosis is observed. There is severe canalicular and hepatocellular cholestasis, with associated necro-inflammatory lesions. Absence of siderosis or steatosis.

Herein we present the first case of a biopsy proven AMA-positive PBC in a teenage boy. Five-year follow-up showed biochemical and histological progression despite therapy. Out of the four cases reported to date, one child had progressive liver disease requiring transplantation at the age of 21 years old, one other child died due to complications of liver disease at the age of 11 years old, while the other two promptly responded to therapy with ursodeoxycholic acid with normalization of liver enzymes [2–4]. One study has described four patients who presented with cholestatic jaundice in non-cirrhotic PBC which seemed to be secondary to an unusually accelerated intrahepatic bile duct loss without significant fibrosis, termed premature ductopenic variant; interestingly all patients presented at an age younger than 50 years-old [5]. Another study reported that patients with ductopenia have diminished response to ursodeoxycholic acid [6].

Taken together these cases suggest that the patients presenting with pediatric-onset PBC are more resistant to ursodeoxycholic acid, and may have a worse prognosis than those with classical

adult presentation. Nevertheless, the true incidence and natural history of pediatric-onset PBC remains to be defined. By raising awareness of pediatric-onset PBC, further cases may be diagnosed.

Informed patient consent

The patient gave informed consent to publication of this letter.

Conflicts of interest

None declare.

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Comment on 'Outcomes of first-line endoscopic management for patients with sigmoid volvulus'

Dear Editor,

I have read with interest the article written by Queneherve et al. [1], who reported a comparison of the prognosis between elective surgery and conservative treatment following endoscopic detorsion in sigmoid volvulus (SV). SV is a rare disease worldwide, but it is endemic in Eastern Anatolia, where I practice [2]. We have experience with 1018 cases of SV over a 52.5-year period between June 1966 and January 2019, which represents the largest single-center SV series worldwide according to the literature in the Web of Science [3]. In light of our comprehensive experience, I would like to discuss the above data for the compared groups, the details of the elective surgery, and the recurrence rates.

First, due to the retrospective nature of the study, the distribution of the patients in groups that employed treatment with elective sigmoidectomy or conservative management was not randomized. As can be seen, there were statistically significant differences between some parameters of the two groups, including mean ages (61 years vs. 76 years, respectively, p = 0.006) and comorbidities (16% vs. 45%, respectively, p = 0.018). Although the results of this study led to some opinions regarding the treatment of SV, the performance of a propensity score-matching analysis, if possible, may supply more realistic results. Nevertheless, as a result of the study, Queneherve et al. [1] have recommended elective surgery as soon as possible after the first episode of SV, similar to common opinion [4]. Our findings support this idea, as 0.0% mortality, 12.4% morbidity and 0.0% recurrence rates were achieved in 113 patients who were treated with elective sigmoid colectomy.

Second, although most authors suggest elective surgery in some selected patients with successful endoscopic detorsion in SV [5], the main concern is to describe certain selection criteria for elective surgery, which, unfortunately, is not a well-discussed subject either in the present study or in the literature [3]. In my experience, age and the American Society of Anesthesiologists (ASA) physical status classification of patients have important roles in decision making. In practice, I perform elective surgery with an estimated mortality rate of 4.3% in patients who are under 70 years of age and in ASA Classes I-III [4]. However, my recent preference has been laparoscopic elective surgery due to its well-known advantages.

Finally, it is not easy to explain the relatively high early recurrence rate (25%) of patients who were treated with sigmoid tube placement following endoscopic detorsion in the present series. In our series, the rate of early recurrence during the hospitalization period was only 4.9% in 566 cases decompressed by endoscopy. Although a tube is traditionally inserted in the sigmoid colon to prevent recurrence in SV, I actually query the necessity and utility of this procedure. In my experience, as an alternative, a repeater sigmoidoscopy may be preferable in recurrent SV cases.

I congratulate the authors and I look forward to their responses and opinions regarding my comments.

Conflict of interest

None declared.

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