SCIENTIFIC LETTER



Kawasaki Disease Causing Common Bile Duct Dilatation

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To the Editor: A 4-y-old girl was referred to the hospital on day 4 of fever. She presented with cervical lymphadenopathy, bulbar conjunctival hyperemia, strawberry tongue, irregular rash on the trunk and extremities, and hard edema of the fingers, and was eventually diagnosed with Kawasaki disease (KD). She had no history of drug intake. Her laboratory data showed elevated direct bilirubin level, hepatobiliary abnormalities, normal amylase, and elevated C-reactive protein level. Her abdominal ultrasonography revealed dilatation of the common bile duct (CBD) with a maximum diameter of 6.1 mm at the intrapancreatic region [1]. Intravenous immunoglobulin (IVIG) was administered. Based on her IVIG nonresponse prediction score, prednisolone and urinastatin were added. The fever subsided the next day. Subsequently, the patient was discharged from the hospital on day 16 without recurrence of KD symptoms or coronary artery dilatations. The maximum diameter of the CBD reduced from 6.1 mm on day 4 to 3.4 mm on day 11, and it gradually diminished and normalized to 2.8 mm on day 36.

The present case is the second report of CBD dilatation in a setting of acute KD in English literature [2]. KD patients show pathological findings, including dilatation of the gallbladder and thickening of the gallbladder wall with neutrophil infiltration around the gallbladder wall, cystic duct mucosa, and bile duct epithelial cells [3]. These findings indicate that KD may lead to cholecystitis and intrahepatic/extrahepatic cholangitis. In the present case,

ultrasonography was the only test performed to assess CBD dilatation. Although the SARS-CoV-2 antigen test was negative, antibody testing could not be performed; therefore, MIS-C cannot be completely ruled out.

The pediatrician should be aware that CBD dilatation is one of the complications of KD, with or without biliary manifestations, and as a result, should add liver supporting therapy.

Declarations

Conflict of Interest None.

References

- Hamada Y, Ando H, Kamisawa T, et al. Diagnostic criteria for congenital biliary dilatation 2015. J Hepatobiliary Pancreat Sci. 2016;23:342-6.
- Morita A, Imagawa K, Ishiodori T, Tagawa M, Takada H. Kawasaki disease with dilatation of the common bile duct: a case report and review of literature. Int J Rheum Dis. 2021;24:1325–30.
- Mercer S, Carpenter B. Surgical complications of Kawasaki disease. J Pediatr Surg. 1981;16:444–8.

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