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Case Report

Atypical Acute Hepatitis A Infection in Children

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Abstract

HAV is a very common childhood disease. Extrahepatic manifestations are rarely found in Hepatitis A Viral (HAV). In this article, we are going to analyze two cases; the first one is associated to cutaneous vasculitis and cryoglobulinemia, while the second one is more complicated, since the disease comes with a thrombopenia.

Keywords: Atypical complication; Cryoglobinemia; Hepatitis A; Thrombopenia

Abbreviations: HVA: hepatitis A virus; HVC: hepatitis C virus; CMV: cytomegalovirus; HBV: hepatitis B virus; EBV: Epstein bar virus; HVE: hepatitis E virus; HIV: h*uman immunodeficiency virus*; AAN: anti-nuclear antibody; ANCA: anti-neutrophil cytoplasmic antibodies; FR: *rhumatoïde Factory*

1. Introduction

HAV is a disease that a lot of children in developed countries suffer from. It is generally self-limited as atypical manifestations that occur in only 6 to 10% of cases. This atypical clinical course of hepatitis can be linked to autoimmunity. This article reports two cases: one with complicated vasculitis hepatitis and the other with thrombopenic purpura.

2. Case Presentation

2.1 Case 1: HAV with cutaneous vasculitis

An eight years-old girl came to emergency department for cholestatic jaundice and fever evolving since three days, the physical examination has discovered a hepatomegaly; the liver function tests (LFTs) had the following results: ALT 1577 U/l, AST 2632 U/l, ALP 85 U/l, and prothrombin was normal: 65, 5% The HAV IgM and IgG antibody test in the hepatitis viral panel were positives but other serology (HVC, HVB, CMV,

EBV, HVE HIV) were negatives. The Medical supervision started with general support measures, 48h later the child got a vascular rash on the lower limbs, knee arthralgia and elbows and abdominal pain, we suspected a purpura rheumatoid and we biopsied the rash, and found leukocytoclastic vasculitis, with IgA IgG, IgM et C3 deposit in direct immunofluorescence; cryoglobinimia was positive, other immunologic causes of this condition were eliminated and the AAN, AND natives ANCA, FR, were negatives. She received steroids at an oral dosing of 1mg/kg/dais of prednisolone. The child has become stable afterwards and the general health status have improved, with resolution of symptoms and a month of following upon her, she was fine after 6 months.

2.2 Case 2: HAV with thrombopenia

A three year old boy has shown up with generalized diffuse, acutaneous bruise and stated that he has been suffering from rectal bleeding for two days. At the clinical exam, we have noticed white stools and dark urine with jaundice, and he was febrile. His evaluation included a cytolysis with ALT 1618U/L and AST 1929U/L with cholestasis ALP 569U/L GGT 168U/L and normal prothrombin 94%, the blood count showed a thrombopenia 8000/mm^3 and he had a positive HAV IgM antibody test in the hepatitis viral panel and negative results in the viral panel for HCV, HBV, cytomegalovirus, and Epstein-Barr virus. The diagnostic of auto-immune thrombopenia purpura complicating a HAV was made and treatment was prescribed: 1g/kg/days of immunoglobulin intravenous for two days; after three days there was no more purpuric rash and the platelet, and the count has increased to 18000/mm^3.

3. Discussion

The typical clinical course of acute hepatitis A virus infection is a spontaneous remission in 90% of the cases, but atypical cases have a prevalence that varies from less than 1 to 20%, depending on the manifestation (overall prevalence 7%) [1]. These events are reported much more frequently with hepatitis B only with hepatitis A and C. The Extra hepatic manifestations are rarely found in children in hepatitis A viral (HAV) infection. The majority of the cases described are among adults, two cases described by Gsmagl Gslek et al., the first was 13 years old the second was an 11 year old with positif IgG and IgM serology of hepatitis A [2-4]. The association of hepatitis A and Enoch-scholein purpura is still exceptional since the number of cases described does not exceed the 10 cases, the first one reported by Garty et al. [10], two other cases were developed by Islek et al., and a last case reported by our Tunisians colleagues [5]. For some authors the non-use of medical treatment was sufficient to attained recovery, unlike in our case the patient was treated by corticosteroids with a spectacular improvement after 6 months [6]. The association of Hepatitis A virus infection and vasculitis or thrombopenia has been rarely reported, most cases were discovered within adults, and only a few cases concerned children [4-7]. In our case the improvement was spectacular with steroid for vasculitis and immunogolobine for thrombopenia. Previous authors improved that recovery was spontaneously or following administration of IV Ig and/ or prednisolone, recommended dose of IVIG was given in view of failure of oral steroid therapy especially in thrombopenia [8-13].

4. Conclusion

The occurrence of this atypical evolution of HAV hepatitis infections is exceptional for children. The determinants of this disease still need to be explored as there are not enough studies on this topic to be able to make recommendations impacting the supervision and the management of those patients.

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