

## Case report

UDC: 615.874:616.831-008  
doi:10.5633/amm.2012.0206**ATYPICAL, CHOLESTATIC FORM OF HEPATITIS A WITH AN EXTRAHEPATIC, CUTANEOUS MANIFESTATION – A CASE REPORT***Lidija Popović Dragonjić<sup>1,2</sup>, Dane Krtinić<sup>2</sup>, Maja Jovanović<sup>1,2</sup>, Miodrag Vrbić<sup>1,2</sup>, Velimir Kostić<sup>1,2</sup> and Ivan Dragonjić<sup>3</sup>*

Hepatitis A sometimes can present through atypical forms and merged extrahepatic manifestations. Most atypical forms include relapsing hepatitis and cholestatic hepatitis. Extrahepatic manifestations of HAV are rare, and include evanescent skin rash and transient arthralgias. A 25-year-old male, previously healthy, developed acute hepatitis. Hepatitis A virus was serologically confirmed. No skin efflorescences were seen at the beginning. Over the course of the illness which extended up to fifteen weeks, bilirubin and aminotransferase levels were continuously highly elevated. Nine weeks after the initial presentation he developed a painless, non-pruritic, purpura-like maculopapular erythematous rash over both lower extremities. Five weeks later, the rash had completely disappeared and the patient's clinical status much improved. This case demonstrates two unusual and unrelated manifestations: prolonged cholestatic form of hepatitis and cutaneous vasculitis. Possible unusual manifestations of this disease should be a reminder of a brief diagnostic examination, which is usually not done in hepatitis A. *Acta Medica Medianae 2012;51(2):31-33.*

**Key words:** atypical hepatitis A, extrahepatic manifestation

Clinic for Infectious Diseases, Clinical Centre Niš, Niš, Serbia<sup>1</sup>  
University of Niš, Faculty of Medicine, Niš, Serbia<sup>2</sup>  
PharmaSwiss Belgrade, Niš Branch Office, Niš, Serbia<sup>3</sup>

Contact: Lidija Popović Dragonjić  
Clinic for Infectious Diseases, Clinical Centre Niš  
Dr Zoran Djindjić's Boulevard 48, 18000 Niš  
E-mail: lidija\_popovic2003@yahoo.com

and cutaneous vasculitis have been associated with cryoglobulinaemia and are rare (2,3).

**Case report**

A 25-year-old male, previously healthy, developed typical signs and symptoms of acute hepatitis. On physical examination he was well-developed and well-nourished, afebrile, eutensive, eucardic and eupnoic. Pertinent physical findings included scleral icterus and jaundice. The patient's liver was slightly tender and palpable one 2 cm below the right costal margin. No skin efflorescence was observed. He was taking no medications, nor alcohol. Laboratory data included a white blood cell count (WBC) of 6200x10<sup>12</sup>/L with normal differential, platelet count 197x10<sup>9</sup>/L, total bilirubin 198 mmol/L, aspartate aminotransferase (AST) 1728 U/L, alanine aminotransferase (ALT) 3123 U/L, alkaline phosphatase 240 U/L. Hepatitis A virus IgM was positive. Hepatitis B and C antibodies were negative. He was treated with standard hepato-protectives and symptomatically. The patient improved over the next four weeks with clearance of jaundice and return of appetite. Repeated blood analyses revealed total bilirubin 39.3 mmol/L, AST 399 U/L, ALT 571 U/L.

Approximately ten to twelve days later he developed increasing pain in the right upper quadrant, associated with fatigue and recurrent jaundice without fever or dyspeptic symptoms. On physical examination the patient was afebrile

**Introduction**

The hepatitis A virus (HAV) is a single-stranded RNA virus of the Picornaviridae family. The HAV is excreted in human feces for up to two weeks before any clinical illness becomes apparent and for the same period after the onset of jaundice. Most affected individuals are under five years of age, having asymptomatic infection. The number of symptomatic infections increases with age. The usual incubation period is 30 days (range 15-60 days). Prodromal symptoms (fever, fatigue, myalgias, anorexia and headache) may occur one week before the onset of jaundice. Atypical symptoms, especially diarrhea, are more often seen in children. Specific signs and symptoms of a hepatic illness (icteric syndrome) subsequently develop. These may last one or more weeks and rarely follow a relapsing pattern. Preexisting liver disease, including chronic viral hepatitis, may be associated with more severe disease (1). Extrahepatic manifestations of HAV are rare, and include evanescent skin rash and transient arthralgias. Documented cases of arthritis

and deeply icteric. The abdomen was soft with moderate right upper quadrant tenderness, mild hepatosplenomegaly, and no ascites. Laboratory results showed a WBC  $7,1 \times 10^{12}/L$ , platelet count  $220 \times 10^9/L$ , total bilirubin  $134 \text{ mmol}/L$ , AST  $1520 \text{ U}/L$ , ALT  $1002 \text{ U}/L$ , alkaline phosphatase  $234 \text{ U}/L$ , albumen  $33 \text{ g}/L$ , INR 1.3 and antinuclear antibody (ANA), antismoothmuscle antibody (ASMA), anti-thyroid antibody (ATA), antiparietal antibody (APA), antimitochondrial antibody (AMA) negative, rheumatoid factor (RF) negative. Repeated hepatitis serologies demonstrated a positive Hepatitis A virus IgM, with negative Hepatitis B virus and Hepatitis C virus anti-bodies. Abdominal ultrasound revealed mild hepatosplenomegaly, a normal gallbladder, and no evidence of biliary dilatation or ascites. Over the course of the next four weeks the patient remained quite fatigued and developed pruritus. The bilirubin fluctuated between 205 and 283 mmol/L and the enzymes remained significantly elevated. In addition, his total protein slowly rose to  $103 \text{ g}/L$  with a drop in albumin to  $26 \text{ g}/dL$ .

Our patient continued to feel fatigue, anorexia, and pruritus. Nine weeks after initial presentation he developed a painless, non-pruritic, maculopapular erythematous rash with purpura over both lower extremities. He remained afebrile. Repeated laboratory analyses revealed a normal complete blood cell count and elevated erythrocyte sedimentation rate of  $108 \text{ mm}/\text{hr}$ . Serum globulin electrophoresis showed marked elevations of IgG, IgM, and IgA, and elevated level of circulating immunocomplexes and complement fractions c3 and c4. Skin changes resembled vasculitis. Five weeks later, the rash had completely disappeared and the patient general and subjective status considerably improved. Blood analyses showed bilirubin  $18.5 \text{ mmol}/L$ , AST  $87 \text{ U}/L$  and ALT  $90 \text{ U}/L$ . Six months later, liver tests were completely normal and the patient felt well.

### Discussion

Two atypical forms of acute hepatitis A are relapsing hepatitis and cholestatic hepatitis.

Cholestatic hepatitis, which this case represents, results in prolonged continuous cholestasis exceeding twelve weeks (4,5). Enzymes are typically in the 500 to 1000 U/L range, and anti-hepatitis A IgM persists throughout the course. Etiology of the cholestasis is unknown. Liver biopsy is rarely necessary, but an abdominal ultrasound should be done to exclude biliary obstruction from common duct stones or neoplasm of the pancreas and biliary ductal system. Other causes of cholestasis such as autoimmune hepatitis, primary biliary cirrhosis, alcoholic hepatitis, drug reactions and sepsis can be ruled out by appropriate testing and a careful history. Corticosteroids and plasmaferesis should be carefully reconsidered and used only in critically elevated bilirubinemia. Usually, no treatment is necessary as the disease resolves spontaneously (6,7).

Our patient had combination of atypical, cholestatic form of hepatitis A and extrahepatic manifestation of hepatitis A, vasculitis. He did not develop other systemic extrahepatic manifestations as arthritis, glomerulonephritis, myocarditis, transverse myelitis, renal failure, thrombocytopenia or aplastic anemia. Cutaneous vasculitis with the presence of circulating anti-immunoglobulins, is the most common extrahepatic manifestation of chronic hepatitis C (8).

However, cutaneous vasculitis is very rare in hepatitis A. Treatment is not necessary and the vasculitis resolves spontaneously as the virus is cleared from the system, as it was in our patient's case (9).

### Conclusion

Although hepatitis A is usually a benign, self-limited disease, this case demonstrates two unusual and unrelated manifestations: prolonged cholestasis and cutaneous vasculitis. Awareness of various clinical forms and possible unusual manifestations of this disease should be a reminder of a brief diagnostic examination, which is usually not done in hepatitis A.

### References

1. Rachima CM, Cohen E, Garty M. Acute hepatitis A. Combination of the relapsing and the cholestatic forms, two rare variants. *Am J Med Sci* 2000; 319(6):417-9. [[CrossRef](#)] [[PubMed](#)]
2. Inman RD, Hodge M, Johnston ME, Wright J, Heathcote J. Arthritis, vasculitis, and cryoglobulinemia associated with relapsing hepatitis A virus infection. *Ann Intern Med* 1986; 105: 700-3. [[PubMed](#)]
3. Chemli J, Zouari N, Belkadhi A, Abroug S, Harbi A. Hepatitis A infection and Henoch-Schonlein purpura: a rare association. *Arch Pediatr* 2004; 11(10): 1202-4. [[CrossRef](#)] [[PubMed](#)]
4. Tong MJ, El-Farra NS, Grew MI. Clinical manifestations of hepatitis A: recent experience in a community teaching hospital. *J Infect Dis* 1995; 171(Suppl 1): S15-S18. [[CrossRef](#)] [[PubMed](#)]
5. Gordon SC, Reddy KR, Schiff L, Schiff ER. Prolonged intrahepatic cholestasis secondary to acute hepatitis A. *Ann Intern Med* 1984; 101(5):635-7. [[PubMed](#)]
6. Kumar P, Bhatia V. Prolonged cholestasis due to hepatitis A virus infection. *Indian Pediatr* 2011; 48(6): 485-6. [[PubMed](#)]
7. Radunović M, Terzić D, Mugoša B, Terzić Z, Andrić B, Ratković M and Radunovic M. Cholecystitis as a cause of abdominal pain in patients with acute viral hepatitis A and B. *Acta Medica Medianae* 2012; 51(1): 20-3. [[CrossRef](#)]
8. Amarapurkar DN, Amarapurkar AD. Extrahepatic manifestations of viral hepatitis. *Ann Hepatol* 2002; 1(4): 192-5. [[PubMed](#)]
9. Lanford RE, Feng Z, Chavez D, Guerra B, Brasky KM, Zhou Y, et al. Acute hepatitis A virus infection is associated with a limited type I interferon response and persistence of intrahepatic viral RNA. *Proc Natl Acad Sci USA*. 2011; 108(27): 11223-8. [[CrossRef](#)] [[PubMed](#)]

## ATIPIČNA HOLESTATSKA FORMA HEPATITISA A SA EKSTRAHEPATIČNOM KOŽNOM MANIFESTACIJOM – PRIKAZ BOLESNIKA

*Lidija Popović Dragonjić, Dane Krtinić, Maja Jovanović, Miodrag Vrbić, Velimir Kostić i Ivan Dragonjić*

Hepatitis A se nekad javlja kao atipična forma ili ima ekstrahepatične manifestacije. Najčešće atipične forme su relapsirajući i holestatski hepatitis. Ekstrahepatične manifestacije HAV-a su retke i obuhvataju mestimičan kožni osip i prolazne artralgijske. Kod dvadesetpetogodišnjeg muškarca, prethodno zdravog, dijagnostikovano je akutno hepatitis. Hepatitis A virus je serološki potvrđen. Na prijemu nije bilo kožnih eflorescenci. Za vreme toka bolesti koji je trajao petnaest nedelja, vrednost bilirubina i aminotransferazna aktivnost bili su sve vreme značajno povišeni. Devet nedelja posle početka kliničke slike, razvio je bezbolan, makulopapulozni eritematozni osip bez svraba, tipa purpura, preko oba donja ekstremiteta. Pet nedelja kasnije, osip se kompletno povukao i klinička slika se kod bolesnika znatno poboljšala. Ovaj slučaj predstavlja dve retke i nepovezane manifestacije: prolongirani holestazni oblik hepatitisa i kožni vaskulitis. Treba imati na umu moguće retke manifestacije ove bolesti kako bi se sprovedo iscrpno dijagnostičko ispitivanje, što obično nije slučaj kod hepatitisa A. *Acta Medica Medianae* 2012;51(2):31-33.

**Ključne reči:** atipični hepatitis A, ekstrahepatična manifestacija