Acute hepatitis A infection in an adult and isolated thrombocytopenia as extra-hepatic manifestation: a case report description.

Endri Mauro, Elena Garlatti Costa, Michela Ghersetti, Silvia Grazioli, Cristina Millevoi, Pietro Casarin

Department of Internal Medicine, General Hospital, Pordenone, Italy

To the Editor,

Usually, hepatitis A virus resolves itself in a few weeks, but uncommon types such as prolonged/biphasic acute and fulminant hepatitis A are also reported (1). In 5-8% of cases, extrahepatic manifestations are reported (2). In particular cutaneous, renal, neurological and haematologic manifestations could be diagnosed (2). In March 2015, a 31-year-old Italian woman was admitted to our Internal Medicine Department because one week before she experienced fever associated to malaise, dyspepsia and jaundice. Her personal history was negative for alcohol, drugs intake or tobacco consumption. Her past medical history was negative. The physical examination was negative for hepatosplenomegaly or purpura. Biochemical investigations revealed cholestasis with high bilirubin levels (11.4 mg/dl), as well as acute hepatitis A (IgM were positive for acute infection) with associated thrombocytopenia (PLT 27x10e9/L), hepatitis B or C virus and Human Immunodeficiency Virus were excluded, the autoimmunity was negative. The abdomen ultrasound scan was normal. We started with Immunoglobulins (0.4 g/kg/die) and steroids, achieving progressive increase of platelets's count (biochemical features are summarized in table 1). The biochemical profile of acute hepatitis was resolved. A week later, the patient was well and was discharged, the platelets's count was 124x10e9/L. The haematological extra-hepatic manifestations of the acute hepatitis A can include aplastic anemia, isolated thrombocytopenia, disseminated intravascular coagulopathy and thrombotic thrombocytopenic purpura (2). The combination of persistent fever, cytopenia, hyperferritinemia, hemophagocytosis in bone marrow identifies a situation know as virus-associated hemophagocytic syndrome (HAV-AHS) : a fatal disease frequently featured by multiple organ failure or disseminated intravascular coagulation (DIC) (3). In the adults, hematological complications could predict liver decompensation or fulminant hepatitis. In our case, considering absence of symptoms, anaemia, coagulopathy and the optimal response to immunoglobulins in combination with steroids, we excluded disseminated intravascular coagulation, thrombotic thrombocytopenic purpura and HAV-AHS. We conclude for isolated thrombocytopenia as side effect of acute hepatitis A infection. Circulating immuno-complexes and platelet's destruction caused by "molecular mimicry" could be the main pathogenic mechanism for this type of isolated thrombocytopenia. Some Authors (5) support the use of immunoglobulins and steroid to achieve the complete resolution of thrombocytopenia. In conclusion, it is necessary to make a good differential diagnosis of the thrombocytopenia to plan the correct therapy.

References

1. TANNO H., FAY O.H., ROMAN J.A., PALAZZI J. Biphasic form of hepatitis A virus infection: a frequent variant in Argentina. *Liver*, 1988, **8** : 53-7.
2. AMARAPURKAR D.N., AMARAPURKAR A.D. Extrahepatic manifestations of viral hepatitis. *Ann. Hepatol*., 2002, **1** : 192-95.
3. WATANABE M., SHIBUYA A., OKUNO J. *et al*. Hepatitis A virus infection associated with hemophagocytic syndrome: report of two cases. *Internal Medicine*, 2002, **41** : 1188-92.
4. KIM H.S., LEE J.Y., JANG J.S. *et al*. Initial thrombocytopenia as a simple, valuable predictor for clinical manifestation in acute hepatitis A. *Scand. J. Gastroenterol*., 2008, **43** : 81-8.
5. TAI C.M., LIU C.J., YAO M. Successful treatment of acute hepatitis A-associated hemophagocytic syndrome by intravenous immunoglobulin. *J. Formos Med. Assoc*., 2005, **104** : 507-10.

Correspondence to : Endri Mauro, Department of Internal Medicine, General Hospital, via Montereale 24, 33170 Pordenone, Italy.
E-mail: endri76@libero.it

Submission date : 29/07/2015
Acceptance date : 27/05/2016

Table 1. — **Laboratory parameters before and during immunoglobulins therapy (n.a.: not available)**

	Onset	**1th day of therapy**	**5th day of therapy**
White Blood Cells count	5,9x10e9/L	5,82x10e9/L	5,54x10e9/L
Hemoglobin (g/dl)	13.1	12.1	11.9
Platelet count	27x10e9/L	19x10e9/L	124x10e9/L
Alanine amino transferase (U/L)	1663	1122	419
Gamma-glutamil aminotransferase (U/L)	217	n.a.	138
Alkaline Phosphatase (U/L)	138	n.a.	n.a.
Total bilirubin (mg/dl)	11.4	8.0	2.3
Direct bilirubin (mg/dl)	8.8	n.a.	1.8
INR	1.13	n.a.	0.8
aPTT ratio	1.13	n.a.	1.0
Fibrinogen (mg/dl)	207	213	249