

## Case Report

### Isolated Asthenia in a Frequent Traveler Due to Hepatitis E

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#### Abstract

We present the case of a 50 year old Caucasian man with the only complaint of asthenia. His clinical examination is unremarkable and the diagnosis of hepatitis E is made by elevated transaminases and a positive serology. The presence of IgM antibodies indicates a recent contamination probably in Cambodia. The patient's recovery is complete within a month after symptomatic treatment. We review the disease and discuss the case.

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#### Introduction

The hepatitis E virus (HEV) is transmitted mainly by the fecal-oral route. It has also been reported from solid organ-transplant recipients [1], causing chronic hepatitis. Typically, HEV causes an infection that is self-limited and it is spread by contaminated water in endemic areas, mostly in developing countries with a hot climate [2]. Exceptionally, food can be contaminated [3,4]. Hepatitis E is widespread in Southeast Asia, India, Northern and Central Africa and Central America. In these places outbreaks of epidemic Hepatitis E usually emerge after heavy rainfalls. Major ones have taken place in New Delhi, India [5] (30,000 cases in 1955-1956), Burma (20,000 cases in 1976-1977), Kashmir, India (52,000 cases in 1978), Kanpur, India (79,000 cases in 1991), and China (100,000 cases in 1986-1988).

HEV was discovered during electron microscopy of feces contaminated with enteric non-A, non-B hepatitis. The virus is icosahedral and non-enveloped. It has a diameter of approximately 34 nanometers, and contains a single strand of RNA approximately 7.5 kilobases long. HEV belongs to the genus *Hepevirus* [6]. Four hepatitis E genotypes exist, but only genotype 1 causes human disease [7]. A trial with a recombinant hepatitis E vaccine was successful in Nepal in 2007 [8]. It included 2,000 healthy adults.

#### Case Presentation

A 50-year-old Caucasian man presents with the only complaint of asthenia. For the past week, he has been feeling weak and somnolent waking up tired in the

morning despite sleeping more than customary. Notably absent symptoms are: nausea (in particular, provoked by tobacco smoke), vomiting, fever, arthralgia and myalgia. The urine and stool color is unremarkable.

#### History of the Disease

The medical history reveals asthma during childhood, no immunization against hepatitis A or B or typhoid fever. The patient has smoked about 1 pack of cigarettes per day for about 14 years but stopped 2 months ago. He travels very frequently throughout Asia. His last trip was to Cambodia where he stayed mostly in villages from February 2 to 6. One week prior to consultation he experienced an upper respiratory tract infection (URTI), which was treated with antibiotics.

#### Clinical Examination

Non-contributory. Pertinent negatives include:

- \* No sclerotic icterus, no hepatomegaly
- \* No right upper quadrant and liver area tenderness or pain on palpation and percussion.

#### Laboratory tests

WBC 10,000; polymorphs 20.9%; lymphocytes 63.8%; monocytes 11.9%  
ESR 11 mm/hr  
TG 167 mg/dL; Tchol/HDL chol 5.26; AP 150 U/L  
SGPT 402 U/L; SGOT 169 U/L; Gamma GT 289 U/L

HepB sAg negative; HepB sAb negative; HepA IgG Ab negative.

The provisional diagnosis is viral hepatitis. On March 3, laboratory tests reveal the following:

- \* HepA IgM Ab negative
- \* Anti-HEV IgG positive
- \* Anti-HEV IgM positive.

**Diagnosis**

Acute hepatitis E.

**Management**

Rest and a nonalcoholic/nonfat diet are prescribed and advice given regarding drugs metabolized by the liver such as certain antibiotics. The asthenia regresses gradually towards complete disappearance within 2 to 3 weeks. The transaminases come back to normal within 11 weeks (Table 1).

Table 1. Hepatic Biological Parameters Evolution

Date	SGPT (U/L)	SGOT (U/L)	Gamma GT (U/L)
Mar 24	123	52	101
Apr 16	121	59	177
Jun 12	41	25	46

**Discussion**

In general, hepatitis E is a self-limiting viral infection with full recovery [9]. Prolonged viremia and extended fecal shedding are unusual. Occasionally, a fulminant form occurs with mortality rates ranging between 0.5% and 4.0%. Fulminant hepatitis is found more frequently in pregnant women inducing a mortality rate of about 20% in the 3<sup>rd</sup> trimester [10].

HEV has been described as a cause of sporadic hepatitis cases in Southeast and Central Asia, including China. The incubation period of the disease varies greatly according to authors with a minimum of 2 weeks, an average of 6 weeks and a maximum of 10 weeks [11,12]. The URTI one week before consultation was possibly a flu-like syndrome and a prodrome of viral hepatitis. Given the variability of the incubation period and the intense travelling schedule of the patient, it is impossible to determine with certainty the geographic origin of his infection. However, the presence of IgM suggests a recent contamination, which may have been related to his living environment in Cambodia [13]. Our current knowledge of hepatitis E would benefit, in particular, from epidemiological studies providing more information on the distribution and prevalence of the disease. The present case underlines the necessity for travelers to developing countries to be reminded of prophylactic measures against water-borne diseases, such as: (1) Drinking only mineral water from sealed bottles; (2) If this is not possible, (a) boil the drinking/cooking water for 10 minutes before use or (b) sterilize it at least 1 hour before consumption with additives such as iodine tincture (10 drops per liter), potassium permanganate, toluene

sodium chloramine or 1,3 dichloro-striazine 2,4,6 trione or (c) sieve it through resin or microceramic filters; (3) Keeping a strict personal hygiene (especially, washing hands before meals); (4) Eating only fruits that can be peeled and readied to be eaten by self or reliable others; and (5) Avoiding ice cubes, ice creams, sherbets, fruits and fruit juices from street vendors.

**Conclusion**

We suggest that hepatitis E should be included in the initial screening of isolated asthenia particularly when prodromal symptoms have occurred and/or exposure to HEV in an endemic area is suspected. Prevention will be much easier when a vaccine is available.

**References**

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