Hepatitis G, Hepatitis TT and Hepatitis Non-A,B,C,D,E,G,TT

Craig V. Towers, M.D., FACOG; Patricia D. Hastings, RN, BSN, MSN, WHNP-C

Examination

1. In regards to hepatitis viral infections, the first two identified were called
   a. Hepatitis B & C
   b. Hepatitis A & B
   c. Hepatitis C & D
   d. Hepatitis D & E
   e. Hepatitis A & C

2. The initial work on hepatitis G began in 1967, in which
   a. an unknown (possibly infectious) agent they called "GB" was found in the blood of a surgeon with the initials GB.
   b. an unknown (possibly infectious) agent they called "GB" was found in the blood of a surgeon with gallbladder disease - hence the initials GB.
   c. an agent they called "GB" was found to cause acute hepatitis in a surgeon.
   d. an agent known to be infectious was found in the blood of a surgeon, transmitted by marmoset monkeys.
   e. a marmoset monkey virus called GB was accidentally transmitted to humans.

3. The "GB agent", later also called hepatitis G was found to be
   a. a double stranded RNA flavivirus-like genome
   b. a single stranded DNA parvovirus-like genome
   c. a double stranded DNA parvovirus-like genome
   d. a single stranded RNA flavivirus-like genome
   e. a single stranded RNA parvovirus-like genome

4. At the present time, regarding Hepatitis G, up to
   a. 2 distinct genotype variants (or possibly three) have been discovered.
   b. 3 distinct genotype variants only have been discovered.
   c. 5 distinct genotype variants (or possibly six) have been discovered.
   d. 8 distinct genotype variants have been discovered.
   e. 9 distinct genotype variants have been discovered.

5. Regarding prevalence studies on hepatitis G in patient populations that are at high risk for blood-borne infections, the detection rate ranges from
   a. 1% to 5%
   b. 8% to 14%
   c. 60% to 82%
   d. 71 to 92%
   e. 2% to 40%

6. Which of the following viruses were thought to be the cause for non-A non-B hepatitis?
   a. hepatitis A & hepatitis B
   b. hepatitis B & hepatitis D
   c. hepatitis C & hepatitis E
   d. hepatitis C & hepatitis TT
   e. hepatitis E & hepatitis G
7. Regarding Hepatitis G,
   a. it has been shown that the virus is transmitted from person to person percutaneously through blood products, IV drug abuse, and high risk sexual activity (similar to hepatitis B and C).
   b. it has been shown to replicate within the hepatocyte and it causes cell damage in the majority of patients.
   c. it has been shown to replicate within the hepatocyte and it causes liver dysfunction in the majority of patients.
   d. only acute infections have been reported – not chronic.
   e. the virus is not sensitive to interferon.

8. Regarding Hepatitis G, what antibody has been found in patients who no longer have detectable viral genome in their bloodstream?
   a. anti-E1 antibody
   b. anti-E3 antibody
   c. anti-B2 antibody
   d. anti-E2 antibody
   e. anti-B1 antibody

9. Regarding Hepatitis G,
   a. chronic carriers usually develop hepatic dysfunction
   b. chronic carriers have been followed and cirrhosis and hepatocellular carcinoma have not been shown to develop at the present time.
   c. chronic carriers have been followed and are high-risk for developing cirrhosis but not hepatocellular carcinoma.
   d. chronic carriers have been followed and are high-risk for developing hepatocellular carcinoma but not cirrhosis.
   e. chronic carriers have not been reported.

10. Regarding perinatal transmission of Hepatitis G from an infected mother to the baby during a pregnancy
    a. studies have shown that transmission rarely occurs.
    b. studies have shown that transmission does occur leading to problems in the newborn period.
    c. studies have shown that transmission does occur, but only in patients who are anti-E2 antibody positive.
    d. studies have shown that the perinatal transmission rate was much higher for C when compared to G.
    e. studies have shown that transmission does occur in a large percentage of cases but that none of the children seem to develop any clinical or biochemical signs of active hepatitis.

11. Which of the following statements is true?
    a. The positive detection rate for the HGV virus in the bloodstream of high-risk patients in most studies is higher than that for Hepatitis C and B.
    b. The transmission is very similar to that of Hepatitis B and C, and it also seems to have the same potential for future long-term disorders.
    c. Perinatal transmission also appears to occur with a range of only 3% to 8%.
    d. Most studies that have analyzed umbilical cord blood for the virus at delivery are positive suggesting a transmission from the mother to the baby prior to the birth process.
    e. The presence of the anti-E2 antibody develops shortly after infection in most patients even though HGV-RNA is still present; therefore, it is probably not a protective antibody.

12. All of the following statements regarding the overall consensus of hepatitis G are true EXCEPT?
    a. that HGV can be transmitted between people and actively replicates.
    b. that HGV does not appear to be a cause for acute hepatitis.
    c. that if HGV were to become pathologic in the future, it may require some other inducing agent or other substance in order to produce clinical disease.
    d. that HGV does not appear to produce liver dysfunction.
    e. that HGV is a distinct DNA virus.

13. The hepatitis TT virus was found to be
    a. a double stranded RNA flavivirus-like genome
b. a single stranded DNA parvovirus-like genome

c. a double stranded DNA parvovirus-like genome

d. a single stranded DNA flavivirus-like genome

e. a single stranded RNA parvovirus-like genome

14. At the present time, regarding Hepatitis TT, up to
a. only 1 distinct genotype variants have been discovered.
b. only 3 distinct genotype variants have been discovered with no subtypes.
c. 4 distinct genotype variants have been discovered, each with subtypes.
d. 7 distinct genotype variants have been discovered with no subtypes.
e. 9 distinct genotype variants have been discovered, each with subtypes.

15. Regarding Hepatitis TT, prevalence studies performed on blood donors in Scotland and the United States have identified the TT virus in
a. 27% to 34% of samples tested.
b. 18 to 25% of samples tested.
c. 10% to 15% of samples tested.
d. 1% to 1.9% of samples tested.
e. .01% to .02% of samples tested.

16. Regarding Hepatitis TT,
a. Several recent studies have confirmed that this virus is pathologic and not just a marker for high-risk groups.
b. Most patients with documented transmission do show clinical and biochemical signs of active hepatitis.
c. In a recent report regarding a large number of Hepatitis TT infected patients, the authors concluded that it was rarely found in certain high-risk groups, but overall it was very pathologic when present.
d. In a recent report regarding a large number of Hepatitis TT infected patients, the authors concluded that it was commonly found in certain high-risk groups, but overall it was possibly only responsible for a few cases of active or chronic hepatitis.
e. Chronic carriers of active viral replication have also been reported with this virus but the development of anti-E2 antibody is protective.

17. Regarding perinatal transmission of the Hepatitis TT virus from an infected mother to the baby during a pregnancy
a. studies have shown that transmission does occur in a large percentage of cases but that none of the children seem to develop any clinical or biochemical signs of active hepatitis.
b. studies have shown that transmission often does occur leading to problems in the newborn period.
c. studies have shown that transmission does occur, but never in patients who are anti-E2 antibody positive.
d. studies have shown that the virus is rarely if ever detected in breast milk, therefore breast-feeding should be allowed.
e. studies have shown that transmission rarely occurs, but when it does, most children develop an antibody within 6 months of delivery.

18. Regarding Hepatitis TT, which of the follow statements is true?
a. This virus, unlike Hepatitis G is rarely found in the blood of patients at high risk for other parenteral related viral infections, such as HIV and Hepatitis C.
b. This virus has been detected in some stool samples and may also be passed by the oral-fecal route.
c. Unlike Hepatitis G, it has been determined that this virus is probably pathologic in every case.
d. Hepatitis TT has not been found in patients with liver disorders.
e. The long-term effects of this virus are well known and should be followed.

19. Regarding Hepatitis non A,B,C,D,E,G,TT,
a. essentially all cases of hepatitis can be traced back to these 7 viruses.
b. unexplained hepatic failure no longer exists.
c. many cases of acute hepatitis not related to these 7 viruses are probably caused by exposure to hepatotoxins.
Which of the following statements is true?

a. Hepatitis G and TT have both been found to be pathologic in those who get infected
b. Hepatitis G and hepatitis TT are most like the same virus discovered in two different individuals.
c. Hepatitis G but not TT is high risk for producing cirrhosis long term, in those infected.
d. Vaccines for both hepatitis G and TT are currently available.
e. Hepatitis G and hepatitis TT may become more pathologic in the future.