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Room: Ballroom

Emphysematous cholecystitis: A rare complication of hepatitis A virus infection

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Background: Acute hepatitis A virus infection, is a common infection, seen especially in childhood, in developing countries and is usually asymptomatic however rarely it can present with extra-hepatic manifestations.A 22-year old male presented to a primary care center with fever, nausea and vomiting and received a diagnosis of an upper respiratory tract infection. Four days after the onset of complaints, the patient's urine color darkened (tea color), and jaundice in the sclera was noticed.

Methods & Materials: In his abdominal examination, his liver crossed over the midclavicular line about 3 cm. There was significant pain and tenderness in the upper right quadrant. In laboratory evaluation the following findings were present; WBC count 11000/mm^3, AST 559U/L, ALT 1830U/L, ALP 357U/L, GGT 327U/L, direct bilirubin 8,71 mg/dL, total bilirubin 16,09 mg/dL, albumin 3.85 mg/dL, prothrombin time(PT) 17.4 seconds, INR 1.26, bilirubin and urobilinogen in the urine (++++).

Results: An abdominal ultrasonography was performed which revealed that the liver was 174 mm, with a grade 1 diffusely increased parenchyme echo. Also, free fluid was present in the pelvic and perihepatic areas. The wall of the GB was measured as 14.6 mm(N:3 mm)(Image 1). There was intramural air present in the wall of the GB. Also in the pericholecystic area, a reticular heterogenous hypoechoic structure, 15 mm in diameter was observed. In the light of these findings, a diagnosis of emphysematous cholecystitis was established, and parenteral ampicilin-sulbactam was initiated empirically. In serological evaluations that were conducted to find out the etiology of the acute hepatitis presentation, HBsAg, anti-HBc IgM, anti-HBc IgG, anti-HCV tests were negative. However anti-HAV IgM and anti-HAVIgG was positive. Within 48 hours of the patient's admission, as there was no improvement in the patient's clinical status, and an increase in the abdominal pain, a laparascopic cholecystectomy was performed. Twenty days after the operation the patients laboratory findings, abdominal USG and liver tests were normal.

Conclusion: To sum up, HAV infection can be seen in all age groups, in developing countries, such as our country. It must be kept in mind that, although very rarely, HAV infections may exhibit extrahepatic complications.

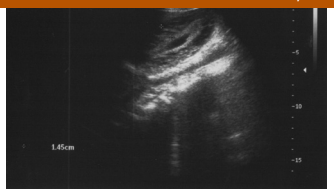

image 1

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Association between HLA-G 14-pb Insertion/Deletion Polymorphism and hepatitis B viral infection: A Case-control study of a central Tunisian population

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Background: Chronic infection with hepatitis B virus is a major cause of liver pathologies. Increasing evidence indicates that immunological and host genetic factors influence hepatitis B infection's outcome.The human leukocyte antigen (HLA)-G plays an important role in immune response regulation. Because of the implication of HLA-G in viruses' immune escape, we tested the 14-bp Insertion/Deletion (Ins/Del) polymorphism (rs1704) of 3'UTR*HLA-G* gene association to HBV infection.

Methods & Materials: Included 150 Tunisian chronic hepatitis B case patients (75 males and 75 females; Mean age 36.45 ± 10.59 years and 150 healthy control subjects (75 males and 75 females; Mean age 34.19 ± 10.75 years). Genotyping for the 14-bp Ins/Del polymorphism was performed by polymerase chain reaction(PCR). Statistical analysis was performed using SPSS version 17.0. The odds ratio (OR) and 95% confidence interval (CI) were calculated to estimate the relative risk.*P* value. Level of significance was set at 0.05.

Results: We found that 27.3% (n = 41) of patients and 29.3% (n = 44) of controls were homozygous for the Del allele; and 38% of patients (n = 57) and 44% of cases (n = 66) were heterozygous (*P* = 0.31).The genotypes were consistent with Hardy-Weinberg equilibrium (X^2 = 2.14 and*P* = 0.14). The alleles frequencies were not statistically different (46.3% for the Del allele *versus* 51.3% for healthy controls; *P* = 0.22). When we stratified according to HBV viral activity (82 patients with non/low viral replication and 68 patients with active viral replication; Threshold = 2000IU), we reported statistical significant differences in the alleles' frequencies (*P* = 0.019, OR = 1.7, 95% CI: 1.08-2.7).The Del allele frequency was evaluated to 52.4% in patients with non/low viral replication and to 39% in patients with active replication.We also found a statistical significant difference (*P* = 0.04; OR = 0.45 and 95% CI: 0.21-0.97) in the distribution of Del/Del genotype between the two patients' subgroups compared with the Ins/Ins and Del/Ins genotypes (34.1% and 19.1%, respectively in non/low-and active viral replication patients).

Conclusion: The data suggest that the HLA-G 14-pb Ins/Del polymorphism may not play a relevant role in the susceptibilityto hepatitis B infection. However, the association between this polymorphism and infection severity suggests an evidence of HLA-G implication in hepatitis B infection progression.

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Hepatitis B core IgM antibodies (anti HBcIgM), a serological marker for eradicating transfussion associated hepatitis B virus (TAHBV) infection in low income countries

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Background: The safety of blood products is one of the major problems concerned with the transfusion medicine. A definite hazard of transmission of hepatitis B to recipients of blood screen for Hepatitis B surface Antigen (HBsAg) when such donor is at the 'window phase' exist. The possibility of achieving zero risk of Transfusion Associated Hepatitis B Virus (TAHBV) infection is highly dependent on DNA testing of all collected units of blood before transfusion. This is not feasible in low income countries including Nigeria due to cost. At present, HBsAg detection is the only diagnostic screening test for HBV infection identification in the blood transfusion centers of Nigeria. Hepatitis B core IgM antibody (anti-HBc IgM) is gaining prominence as a useful alternative in reducing TAHBV infection. The present study was aimed at evaluating adoption of anti-HBc IgM an additional screening assay for blood donation since anti-HBc detection is not mandatory in Nigeria.

Methods & Materials: Two hundred and seventy-three (Male = 246, F = 27; Age range:18-50 Mean:24.9years) apparently healthy blood donors in Ibadan were enrolled in the study between October and December 2012; their demographic data was obtained. The frequency of HBsAg and its corresponding antibody (HBsAb), as well as Hepatitis B envelope antigen and its corresponding antibody (HBeAg and Ab) were assessed using standard enzyme link Immunosorbent assay EELISA) technique. Anti-HBcIgM was also assessed in donors negative or positive for HBsAg using same method.

Results: The prevalence of anti-HBc IgM was 4.4%. Twelve (11 Males and 1 female) had anti-HBc IgM as the only marker of HBV infection. Prevalence of HBsAg, HBsAb, HBeAg and HBeAb were 14(5.1%), 95(34.8%), 2(14.3%) and 3(21.4%) respectively.

Conclusion: The findings of the current study recommends that all blood units should be tested for anti -HBc IgM to understand the infectivity status of the blood donors in the window period and to discard blood if zero risk of Transfusion Associated Hepatitis B Virus (TAHBV) infection will be achieved in Nigeria.

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Hepatocellular carcinoma in a long-term sustained virological responder following pegylated-interferon plus ribavirin combination therapy for chronic hepatitis C

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Background: It is well known that long-term complications of hepatitis C virus (HCV) infection including hepatocellular carcinoma (HCC) and cirrhosis are eliminated or decrease in sustained virological responders after treatment. We report a case from Turkey who developed HCC 4 years after sustained and complete response to pegylated interferon plus ribavirin combination therapy.

Methods & Materials: A 60-year-old man with HCV genotype 1b was treated with pegylated interferon alpha-2b in combination with ribavirin for a total of 52 weeks. Initially, his liver histology was consistent with a mild activity and 1\6 fibrosis stage due to chronic hepatitis C. After 28 weeks of treatment, aminotransferase levels were in the normal range and HCV RNA (polymerase chain reaction) was undetectable in serum. Sustained and complete response were obtained with normalization of aminotransferases and disappearance of HCV RNA in serum continuously. HCV-RNA was also not detected in the liver tissue after treatment, but histopathological examination was the same as before. He followed up for HCC based on biochemical and ultrasound evaluation every 6 months.

Results: HCC was detected 48 months after cessation of therapy with the elevation of serum aminotransferases and alpha-fetoprotein for the first time, then splenomegaly and acid were revealed by ultrasonography. HCC was diagnosed by computed tomography and angiography, and then treated through transarterial embolization but patient died of liver failure within 2 months.

Conclusion: Successful treatment in our case didn't prevent development of HCC even in non-cirrhotic liver. Our case indicates the importance of not underestimating risk of HCC development even many years after sustained and complete response to HCV treatment. Long-term follow up are always mandatory and should include more carefully and closely surveillance for HCC.

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