HEPATITIS C
January 2003

1: Am J Trop Med Hyg 2002 Oct;67(4):436-42
Role of hepatitis C infection in chronic liver disease in Egypt.
Strickland GT, Elhefni H, Salman T, Waked I, Abdel-Hamid M, Mikhail NN, Esmat G, Fix A.
Hepatitis C Prevention Project: Department of Epidemiology and Preventive Medicine, University of Maryland School of Medicine, Baltimore, Maryland 21201, USA. tstrick@epi.umaryland.edu
Hepatitis C virus (HCV) is considered the most common etiology of chronic liver disease (CLD) in Egypt, where prevalence of antibodies to HCV (anti-HCV) is approximately 10-fold greater than in the United States and Europe. Reported are results that show the role of HCV in both overt and occult CLD, the risk factors for CLD and for HCV infection, and the relative importance of chronic HCV, hepatitis B, or both in causing hepatic morbidity. Case patients included 237 new outpatients at the National Liver Institute. Controls comprised 212 sex- and age-matched neighbors without liver disease. Case patients were more likely than controls to report a history of blood transfusions, schistosomiasis, or parenteral therapy for schistosomiasis; to have anti-HCV, HCV RNA, hepatitis B surface antigen, and serum alanine aminotransferase (ALT) elevations; and to have abdominal ultrasound findings of cirrhosis, portal hypertension, and splenomegaly. Anti-HCV-positive case patients were more likely than anti-HCV-negative patients to be male, older, and farmers: to have received a blood transfusion or parenteral therapy for schistosomiasis; to have ALT elevations; and to have ultrasound findings of cirrhosis, portal hypertension, and spleen enlargement. Anti-HCV-positive controls were more likely than anti-HCV-negative controls to have received parenteral therapy for schistosomiasis. These data support the belief that HCV is the predominant cause of CLD in Egypt and suggest there is a large underlying reservoir of HCV-caused liver disease.
PMID: 12452500 [PubMed - indexed for MEDLINE]

2: Br J Cancer 2002 Oct 21;87(9):966-70
Determinants of formation of aflatoxin-albumin adducts: a seven-township study in Taiwan.
Sun CA, Wu DM, Wang LY, Chen CJ, You SL, Santella RM.
School of Public Health, National Defense Medical Center, School of Public Health, No. 161, Section 6, Min-Chuan East Road, Taipei 114, Taiwan, Republic of China. sunca@ndmctsgh.edu.tw
Dietary exposure to aflatoxins is one of the major risk factors for hepatocellular carcinoma. Individual susceptibility to aflatoxin-induced hepatocarcinogenesis may be modulated by both genetic and environmental factors

affecting metabolism. A cross-sectional study was performed to evaluate determinants of the formation of aflatoxin covalently bound to albumin (AFB1-albumin adducts). A total of 474 subjects who were free of liver cancer and cirrhosis and were initially selected as controls for previous case-control studies of aflatoxin-induced hepatocarcinogenesis in Taiwan, were employed in this study. Aflatoxin-albumin adducts were determined by competitive enzyme-linked immunosorbent assay, hepatitis B surface antigen and antibodies to hepatitis C virus by enzyme immunoassay, as well as genotypes of glutathione S-transferase M1-1 and T1-1 by polymerase chain reaction. The detection rate of AFB1-albumin adducts was significantly higher in males (42.5%) than in females (21.6%) (multivariate-adjusted odds ratio=2.6, 95% confidence interval=1.4-5.0). The formation of detectable albumin adducts was moderately higher in hepatitis B surface antigen carriers (42.8%) than in non-carriers (36.6%) (multivariate-adjusted odds ratio=1.4, 95% confidence interval=1.0-2.1). In addition, the detection rate of AFB1-albumin adducts tended to increase with the increasing number of null genotypes of glutathione S-transferase M1-1 and glutathione S-transferase T1-1. In conclusion, this cross-sectional study has assessed the relative contributions of environmental exposure and host susceptibility factors in the formation of AFB1-albumin adducts in a well characterised Chinese adult population. This study further emphasises the necessity to reduce aflatoxin exposure in people living in an area endemic for chronic hepatitis B virus infection.
PMID: 12434285 [PubMed - indexed for MEDLINE]

3: Transfusion 2002 Sep;42(9):1146-53
Transfusion transmission of HCV infection before anti-HCV testing of blood donations in England: results of the national HCV lookback program.
BACKGROUND: An HCV lookback program started in England in 1995. STUDY DESIGN AND METHODS: Data from all English blood centers were collated to describe the outcomes of the HCV lookback program in England and to create a retrospective cohort for study. Numbers of recipients identified, numbers that were tested, and numbers that were found to be HCV infected were summarized. The data set created was used to describe the outcomes of the lookback and the HCV infections detected. RESULTS: A total of 4424 recipients of 9222 blood components made before donation testing for anti-HCV from the donations of 1286 donors found, on subsequent testing, to be anti-HCV positive or indeterminate were identified. Of these, 1351 blood recipients were reported as having been traced for testing. Fifty percent of tested recipients were found to be HCV infected. Factors positively associated with HCV infection in tested recipients were more recent year of transfusion and PCR positivity of the donor at the time of their testing. CONCLUSIONS: The majority of components entering lookback did not result in a tested recipient. However, this lookback has identified a large group of HCV-infected individuals. Follow-up of this group for disease progression will inform the natural history of HCV infection.
PMID: 12430671 [PubMed - indexed for MEDLINE]

4: Transfusion 2002 Sep;42(9):1140-5
Probability of receiving testing in a national lookback program: the English HCV experience.
BACKGROUND: The HCV lookback program was designed to trace and offer testing to recipients who received transfusion of blood components from donors subsequently found to be anti-HCV positive. Only approximately 20 percent of transfusable components entering lookback did result in a recipient obtaining testing through this program. STUDY DESIGN AND METHODS: Data from English blood centers were collated to describe the outcomes of the HCV lookback program. The data were used to assess factors affecting the likelihood that recipients of lookback components received testing by the program. RESULTS: In total, 4424 recipients of 6687 blood components that had been issued for transfusion were identified.

The lookback resulted in a tested recipient for 1067 components. Factors positively associated with receiving testing in identified recipients were younger age at transfusion, more recent year of transfusion, certain component types, and transfusion under the care of certain medical specialties; these effects were largely explained by the association of these factors with survival after transfusion. CONCLUSIONS: Not accepting testing through this program was largely due to death before the lookback and partly due to inability to access information from records and to decisions that testing was not in recipients' best interests. The probability of obtaining testing through this lookback was associated with several factors that could be used to focus the efforts of similar lookbacks in the future.
PMID: 12430670 [PubMed - indexed for MEDLINE]

5: Tumori 2002 Sep-Oct;88(5):400-6
Lack of HCV infection in malignant cells refutes the hypothesis of a direct transforming action of the virus in the pathogenesis of HCV-associated B-cell NHLs.
De Vita S, De Re V, Sansonno D, Gloghini A, Gasparotto D, Libra M, Sacco S, Carbone A, Ferraccioli G, Boiocchi M.
Division of Rheumatology, DPMSC, University of Udine, Italy.
AIMS AND BACKGROUND: Preliminary evidence suggests that hepatitis C virus (HCV) might play a pathogenetic role in autoimmune-related, non-malignant B-cell lymphoproliferation, as well as in a subset of B-cell non-Hodgkin's lymphomas (NHLs). With regard to the mechanism(s) by which HCV might favor B-cell expansion and malignant transformation, most data support an indirect pathogenetic role of the virus as an exogenous trigger. A direct oncogenetic role of HCV by direct cell infection and deregulation has only been hypothesized on the basis of the lymphotropism of the virus. METHODS: In this study we investigated the possible HCV infection of NHL B cells by means of sensitive and quantitative polymerase chain reaction (PCR) on affinity-purified neoplastic cells, and by HCV-specific immunohistochemistry and in situ hybridization. RESULTS: HCV infection of neoplastic B cells was documented in only three cases, namely the low-grade B-cell NHLs that arose in the course of mixed cryoglobulinemia syndrome (MC). HCV infection, below one viral genome per cell, was detectable only by PCR. All the remaining low-grade (one case) and high-grade B-cell NHLs (two cases) were HCV uninfected. Previous immunoglobulin gene analyses were consistent with an antigen-driven B-cell lymphoproliferation in the studied cases. CONCLUSIONS: Overall, our data are consistent with an indirect oncogenetic role of HCV in B-cell lymphomagenesis as an exogenous trigger. Infection of B cells by HCV appears possible in some NHL subsets, but the implications remain unknown.
PMID: 12487559 [PubMed - indexed for MEDLINE]

6: Tumori 2002 Sep-Oct;88(5):420-3
Solitary plasmacytoma of the jaw occurring in an elderly woman affected by hepatitis C virus infection: a case report.
Di Micco P, Niglio A, Torella R, Di Micco B.
Department of Geriatric Medicine and Metabolic Disease, Fifth Division of Internal Medicine, Second University of Naples, Italy. pdimicco@libero.it
Solitary plasmacytoma accounts for a small percentage of plasma cell neoplasms. The disease often affects older people and is potentially curable. Only a few cases of solitary jaw plasmacytoma have been described in the literature. Here we report the case of a 76-year-old woman affected by chronic hepatitis C infection and isolated plasmacytoma of the left jaw. Plasmacytoma was diagnosed in January 2001, but the swelling of the mandible had been present since 1993. Two different pathologists made the diagnosis on the basis of biopsy material from the mandibular swelling.
PMID: 12487564 [PubMed - indexed for MEDLINE]

7: Vojnosanit Pregl 2002 Sep-Oct;59(5):479-84
Evaluation of ribavirin efficacy and tolerance in subjects with chronic hepatitis C virus infection.
Stanimirovic V, Nikolic D, Stanimirovic B, Nikolic A, Cucak S.
Galenika R&D Institute, Belgrade.
BACKGROUND: Reports by hepatologists indicated that anti-HCV antibodies might be detected in 71% to 84% of cases of post-transfusion hepatitis and in up to 50% of cases of sporadic non-A non-B hepatitis. Anti-HCV antibodies were detected in 0.05-1% of blood donors with normal alanine transaminase (ALT) levels and negative anti-HBc screening. Anti-HCV antibodies were found in 67% of patients with a history of intravenous drug abuse or autoimmune hepatitis, and in 10-30% of patients with hepatocellular carcinoma. This indicated that hepatitis C virus was a major cause of the acute and chronic hepatitis throughout the world. METHODS: This was a multicenteric, international, double-blind, randomized, placebo-controlled study. After the eight-week screening period, patients were randomized to receive daily ribavirin 1200 mg or placebo, during the 48-week treatment period. Follow-up observations were performed during a 16 week post-treatment period. Up to 80 male and female outpatients with mild to moderate chronic active hepatitis C virus infection were enrolled in this study. RESULTS: During the treatment period ALT values were significantly lower in the ribavirin group. Neither in the ribavirin group, nor in the placebo group significant statistical differences of the HCV RNA values were found. Significantly lower portal inflammation was noticed in ribavirin group after the treatment. Analysis of laboratory data demonstrated that ribavirin therapy was associated with mild to moderate reversible anemia. Investigator's evaluation of the effect of the therapy on patient's well being showed statistically significant differences in the benefit of the ribavirin group. CONCLUSION: In this study ribavirin was more effective than placebo in reducing ALT levels during the treatment period of the applied therapy in patients with chronic active hepatitis C.
Publication Types:
Clinical Trial
Multicenter Study
Randomized Controlled Trial
PMID: 12451727 [PubMed - indexed for MEDLINE]