**Results:** After 24 weeks of therapy, mean reduction of HBV-DNA level, the percentage of patients with HBV-DNA lower than 5 log10 copies/ml and the percentage of patients with HBV-DNA level decrease of more than 2 log10 copies/ml in group B were significantly higher than those in group A ($P < 0.05$, respectively). At the end of 24, 48 and 96 weeks, the patients in group B had higher rates of undetectable serum HBV-DNA levels and ALT normalization than those in group A (46% vs 25%, 74% vs 54.2%, 88% vs 70.8%; 52% vs 31.3%, 66% vs 43.8%, 82% vs 62.5%; $P < 0.05$, respectively). HBeAg seroconversion rate was significantly higher in group B than those in group A (48% vs 27.1%, $P < 0.05$). There was no evidence of adverse effect in patients treated for up to 96 weeks.

**Conclusion:** Adefovir dipivoxil is an effective treatment option for nucleoside-naïve patients with HBeAg-positive chronic hepatitis B, especially for those with high serum ALT levels at baseline. Adefovir dipivoxil treatment through 96 weeks was well tolerated and resulted in continued benefit for patients with HBeAg-positive chronic hepatitis B.

doi:10.1016/j.ijid.2010.02.2015

53.034

The relationship between HBV precore region mutation and the variation of T-lymphocyte subpopulations in chronic HBV-infected individuals with normal liver function tests

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**Background:** To investigate peripheral T-lymphocyte subpopulation profile and its correlation with HBV precore region 1896 mutation in chronic HBV-infected (CHI) individuals with normal liver function tests.

**Methods:** HBV precore region 1896 mutation and distribution of T-lymphocyte subpopulations in peripheral blood were measured in CHI individuals with normal liver function tests. HBV markers were detected with ELISA. Serum HBV DNA load was assessed with quantitative real-time polymerase chain reaction. The results of peripheral T-cell subsets were compared among groups based on HBV precore region 1896 mutation status, HBeAg, age, sex and the quantities of HBV DNA.

**Results:** CHI individuals with normal liver function tests had significantly decreased CD4+ cells and CD4+/CD8+ ratio, and increased CD8+ cells compared with uninfected controls, all with $P < 0.01$. Comparing with HBV precore region non-mutation group, the patients with precore mutation had significant decreased CD4+ cells and CD4+/CD8+ ratio and increased CD8+ cells. Univariate analysis showed a similar pattern of these parameters was significantly associated with presence of serum HBeAg expression and high viral load, all with $P < 0.05$ or 0.01. The presence of HBeAg expression carried by the HBV precore region mutation positive group were not significant different than those observed in HBV precore region mutation negative group. There is a significant difference in the quantities of HBV DNA between the HBV precore region mutation positive group and negative group. No obvious differences of T-cell parameters and presence of precore mutation were observed among various age groups and sex groups, all with $P > 0.05$.

**Conclusion:** T-lymphocyte impaired balance was significantly associated with HBV precore region mutation in CHI individuals with normal liver function tests. Which with HBeAg expression and the HBV DNA replication affect each other and co-result in lower T-cell immune function and chronic infection persistent status.


53.035

Patterns of hepatitis A infection by Brazilian regions: Results of the national household survey 2004—2009


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**Background:** Brazil has been classified as high endemic country and HAV vaccine is not implemented in the routine immunization calendar. The objectives were to estimate the prevalence of hepatitis A among children and adolescents by Brazilian regions and household/contextual risk factors association. This population-based survey was conducted between 2004 and 2009. It was a Ministry of Health and PAHO initiative with the Universities and Public laboratories located in the State capitals.

**Methods:** A stratified multistage cluster sampling technique with probability proportional to size was used to select around 6400 individuals aged between 5 and 19 years residents of the State capitals and the Federal District. The sample was stratified according to age (5—9 and 10- to 19-years-old) within each region. Individual- and household-level data were collected by home inter-
Acute liver failure is a frequent pathology in the Colombian pediatric population: a retrospective and prospective study

Background: Acute Liver Failure is a frequent pathology in the Colombian pediatric population and is caused by the Hepatitis A Virus in up to 32.6% of the cases. A high percentage of patients need liver transplantation and in some cases have fatal consequences. Many of these cases are preventable with vaccination.

Methods: A transversal study based on the revision of clinical histories and questionnaires carried out in 10 health institutions in 5 Colombian cities; including 2 Centers specialized in Transplants to evaluate the cases of Fulminant Hepatic Failure in patients under the age of 18 years of age presented between January 1998 and November 2009.

Results: 47 clinical histories were revised and 46 subjects were included. The average age was 5.8 years of age (4 months of age – 16 years of age); of which 58.6% corresponded to the female gender; 28.35% (13/46) coming from rural areas. Jaundice was found in 100% of the subjects upon entry and encephalopathy in 76% (35/46). Liver failure was mortal in 32.6% (15/46), with the average age being 6, 5 years of age. Infection as a result of the Hepatitis A Virus was one of the first causes of FHF with 32.6% (15/46) as well as Indeterminate Hepatitis (32.6%) and 15.2% caused by a toxic reaction to the medications. The greatest proportion of deaths is associated to Indeterminate Hepatitis due to the forcefulness of the disease and the limited elements to understand its etiology. 76.6% of the transplant candidates obtained a successful transplant (67%); retransplant was carried out in 2 subjects, one died and the other managed to survive.

Conclusion: Acute Liver Failure is a frequent pathology among the pediatric ages in Colombia and is caused by the Hepatitis A Virus in up to 32.6% of the cases. A high percentage of patients need liver transplantation and in some cases have fatal consequences. Many of these cases are preventable with vaccination.