dL (IQR 127–158); 139 mg/dL (IQR 116–164 mg/dL) at week 4 (p = 0.767), 159 mg/dL (IQR 134–175) at week 12 (p = 0.001), and 152 mg/dL (IQR 138–174) at week 24 (p = 0.013). Median baseline glucose was 92 mg/dL (IQR 89–111); 97 mg/dL (92–108) at week 4 (p = 0.381); 96 mg/dL (90–105) at week 12 (p = 0.899) and 90 mg/dL (84–94) at week 24 (p = 0.002).

CONCLUSION: Higher levels of lipids were presented after lead-in phase in Latin-American people under boceprevir containing triple therapy. Decrease in serum glucose levels was observed after 24 weeks of treatment.

HEPATITIS B VIRUS: DIAGNOSIS AND MONITORING

P27

T and B cell responses and previous exposure to hepatitis B virus in 'anti-HBc alone' patients

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BACKGROUND: A serologic response to hepatitis B virus (HBV) of 'anti-HBc alone' is commonly observed, but its clinical and immunologic significance remains unknown. Therefore, this study was performed to define the relationship with HBV infection and the features of HBV-specific T and B cell memory responses of 'anti-HBc alone' donors.

MATERIALS AND METHODS: Total HBV DNA and cccDNA detections by nested polymerase chain reaction (PCR) analysis were tested in 22 'anti-HBc alone' donor liver biopsy or block samples. Nineteen of these 22 subjects were also assessed by HBsAg and HBcAg immunohistochemical (IHC) staining. IFN-γ secretion by HBV-specific T cell responses with enzyme-linked immunospot (ELISpot) assays was compared in individuals who were 'anti-HBc alone' (n = 27), resolved HBV (n = 21), chronic HBV (n = 24) and 12 healthy controls, respectively. Finally, a human IgG B-cell ELISpot assay for the analysis of vaccine-induced B-cell responses was performed in 'anti-HBc alone' patients before and after a booster dose of recombinant HBsAg vaccine.

RESULTS: Twenty-three of 31 (74.2%) 'anti-HBc alone' subjects were HCV co-infected. Infrequent intrahepatic total HBV DNA (2/22, 9.1%) and cccDNA (1/22, 4.5%) were detected in biopsies, while HBsAg and HBcAg IHC staining were totally negative. The frequencies of circulating HBV-specific T cell responses between 'anti-HBc alone' individuals and HBV resolvers were similar (p > 0.05).

Before a challenge dose of HBV vaccination, circulating HBV-memory B cell responses could already be detected in all 'anti-HBc alone' individuals in the B cell ELISpot. After one dose of HBV vaccination, only in two of six (33.3%) 'anti-HBc alone' cases, anti-HBs antibody levels in plasma became greater than the protective cut-off level. However, this was accompanied by an expansion of HBsAg-specific memory B cells, which were significantly stronger in the B cell ELISpot than before vaccine (p = 0.0403).

CONCLUSIONS: 'Anti-HBc alone' individuals showed a HBV-specific T cell and memory B cell response typical of previous viral exposure and protective memory, suggesting a resolved infection.

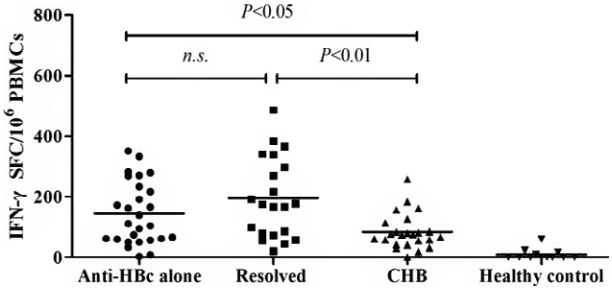

Fig. 1 Comparisons of mean spots of the positive tests and frequency of positive responses (calculated on all HBV recombinant protein antigens and peptide pools) obtained in four groups are presented.

HEPATITIS B VIRUS: NATURAL HISTORY AND EPIDEMIOLOGY

P28

Status for hepatitis B virus infection and socioeconomic variables: a multiple correspondence analysis

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BACKGROUND: Medellín city has a low endemicity and the vaccination against hepatitis B began about 20 years ago. The objective was to explore the relationship between the status for hepatitis B virus infection and socioeconomic variables.

METHOD: A population – based and random serosurvey was conducted in Medellín, Colombia in 2009 in individuals of 6 to 64 years old, from rural and urban area. Samples of 2010 individuals were tested by ELISA for HBsAg, Anti-HBc, Anti-HBs. Sera from HBsAg and Anti-HBc positive individuals were tested for IgM anti-HBc, The testing was performed according to manufacturer's instructions. The Individual's status were classified: susceptible (negative HBsAg, Anti-HBc, Anti-HBs), immune due to vaccination

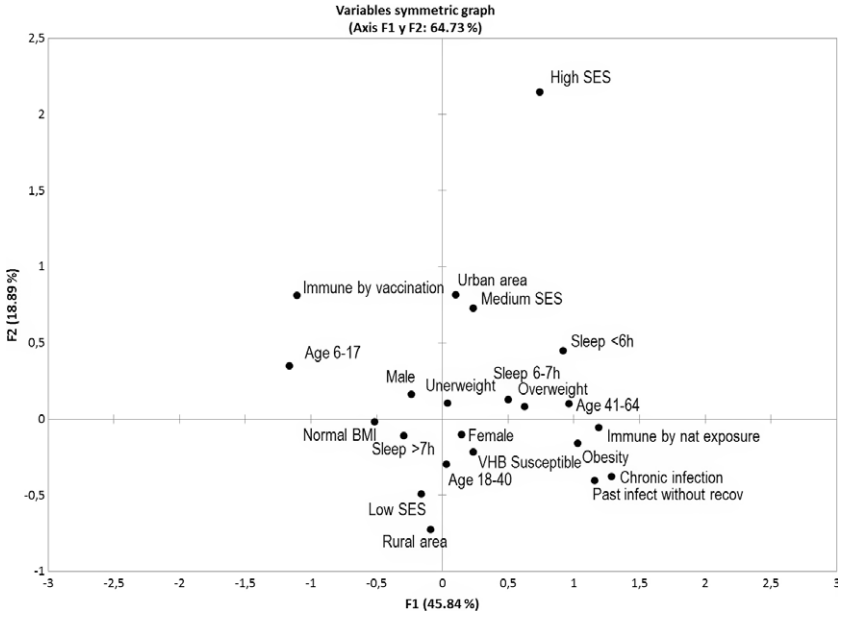

Fig. 1 Correspondence analysis map of status for hepatitis B virus infection and socioeconomic variables.

(positive Anti-HBs and negative HBsAg, Anti-HBc), immune due natural exposure (negative HBsAg and positive Anti-HBc, Anti-HBs), chronic infection (negative Anti-HBs IgM anti-HBc and positive HBsAg, Anti-HBc), past infection unresolved (positive Anti-HBc and negative HBsAg, Anti-HBs, IgM anti-HBc). The pattern of relationship between these conditions and socioeconomic variables by multiple correspondence analyses was executed using XLSTAT (v 14 Addinsoft SARL®) (1).

RESULTS: The sample data were distributed in the following states: 75.1% were susceptible individuals, 20.5% vaccinated, 3.2% immune due to natural exposure, 0.85% individual with past infection without recovery evidence and 0.2% with chronic infection. Acute disease wasn't found. The profile of immune due vaccination individuals corresponds to males aged 6 to 17 years old. Susceptible individuals were women, 18 to 40 years old, living in rural areas, their socioeconomic status was low, on average slept more than 7 h. Being obese and aged 41–64 years old have a close relationship with immunity through natural exposure, chronic infection and past infection unresolved.

Relationship between metabolic syndrome (includes obesity) and chronic hepatitis B has been demonstrated (2). Unlike other studies, increased sleep duration wasn't related to immunity due to vaccination (3), in contrast, was related with susceptibility.

CONCLUSION: Additional studies on the relationship between obesity and exposure to the hepatitis B virus and the socioeconomic conditions are required to elucidate a possible relationship between those factors and the presence of unresolved cases.

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