

POSTERS

the third U.S. National Health and Nutrition Examination Survey, 1988–1994. Participants were followed through 2011 for mortality as identified by death certificate diagnoses. Hazard rate ratios (HR) for mortality were calculated using Cox proportional hazards regression to adjust for factors associated with both race-ethnicity and mortality.

Results: Mexican Americans had adverse measures of socioeconomic status and were more likely to have obesity and diabetes compared with non-Hispanic whites at baseline. During up to 23 years of follow-up, there were 201 deaths with liver disease, including viral hepatitis and primary liver cancer, as the underlying or a contributing diagnosis. In age- and sex-adjusted analysis, liver disease mortality was twice as high among Mexican Americans compared with non-Hispanic whites, while there was no statistically significant difference for non-Hispanic blacks (Table). Adjustment for hepatitis B or C infection or for non-alcoholic fatty liver disease (NAFLD) risk factors (BMI, waist-to-hip ratio, diabetes) attenuated the association of Mexican American ethnicity with higher liver disease mortality. With adjustment for socioeconomic status (SES; education, income) and health insurance, Mexican American ethnicity was not statistically significantly associated with higher liver disease mortality. Results were similar with simultaneous adjustment for all of the above factors. Limiting analyses to deaths with liver disease as underlying cause had little effect on relationships.

Table: Liver disease mortality HR (95%CI) compared with non-Hispanic whites

Adjusted for	Non-Hispanic blacks	Mexican Americans
Age, sex	1.6 (1.0–2.5)	2.2 (1.3–3.5)
Age, sex, viral hepatitis	1.3 (0.7–2.2)	2.0 (1.2–3.5)
Age, sex, NAFLD risk factors	1.4 (0.8–2.5)	1.9 (1.1–3.4)
Age, sex, SES, insurance	1.2 (0.6–2.1)	1.3 (0.6–2.7)
All factors listed above	0.9 (0.5–1.8)	1.3 (0.6–2.5)

Conclusions: In the U.S. population, lower socio-economic status and lack of health insurance made a greater contribution to higher liver disease mortality among Mexican Americans than did viral hepatitis or NAFLD risk factors.

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THE PRESENCE OF WHITE MATTER LESIONS IS NOT ASSOCIATED WITH NON-ALCOHOLIC FATTY LIVER DISEASE BUT WITH ITS HISTOLOGICAL SEVERITY

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Background and Aims: Nonalcoholic fatty liver disease (NAFLD) has been associated with increased cardiovascular risk, including coronary artery disease and cerebrovascular events. No studies however assessed the potential relationship between NAFLD and subclinical cerebrovascular alterations. We tested the correlation between NAFLD and its histological severity with vascular white matter lesions (WML) in patients with biopsy-proven NAFLD and in non steatotic controls.

Methods: The anthropometric, biochemical and metabolic features were recorded in 77 consecutive biopsy-proven NAFLD (Kleiner score), and in 35 controls with normal ALT, without chronic liver diseases, and without ultrasonographic evidence of steatosis. All patients underwent minimal test (MMT) and magnetic

resonance assessment of WML. MMT was considered pathologic if <23. WML were classified according to the Fazekas score in absent (0/III), or present (mild I/III; moderate II/III, and severe I/III). For purpose of analyses all controls, as plausible, were considered without NASH and without F2–F4 liver fibrosis.

Results: WML were found in 26% of the entire cohort (29/112), even if of a moderate-severe grade in 5 patients only. The prevalence of WML was similar in NAFLD compared to no NAFLD (27% vs 23%; $p=0.62$). Age ≥ 50 yrs, female gender, type 2 diabetes, arterial hypertension, presence of NASH (35% vs 18%, $p=0.05$) and presence of F2–F4 fibrosis (43% vs 17%, $p=0.003$) were associated with WML presence ($p\leq 0.01$). At multivariate analysis age >50 yrs (OR 3.44, 95% CI 1.01–11.6, $p=0.04$), female gender (OR 3.71, 95% CI 1.28–10.7, $p=0.01$), and F2–F4 fibrosis (OR 3.39, 95% CI 1.17–9.84, $p=0.02$) were maintained as factors independently associated with WML. When considering NAFLD patients only, we confirmed F2–F4 fibrosis as the only independent predictor of WML (OR 4.24, 95% CI 1.14–15.7, $p=0.03$). A pathological MMT was found in 10/112 patients (9%) – all of them with NAFLD. Specifically the prevalence of an altered MMT was 17% in patients with WML and 8% in those without.

Conclusions: The presence of WML is not associated with NAFLD but with its histological severity. Clinical implications of this issue need to be assessed by longitudinal studies. The ability of MMT to detect subclinical WML was poor.

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COMPARISON OF CLINICAL, BIOCHEMICAL, AND HISTOPATHOLOGICAL PROFILES BETWEEN NAFLD IN ASIAN-INDIANS AND UNITED STATES ADULTS

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Background and Aims: Non-alcoholic fatty liver disease (NAFLD) is one of the most common liver disorders in Asian and Western countries. The epidemiological and demographic character of NAFLD patients differs with geographic variation. Studies across ethnicities in the United States (U.S.) reveal a higher prevalence in Hispanics and African-Americans with limited studies involving Asians. Data suggest that Asian-Indian patients tend to have different characteristics than their counterparts in the West. This study is the first attempt at comparing the characteristics of Asian-Indian and U.S. NAFLD patients.

Methods: A retrospective analysis of clinical, biochemical and histological parameters was performed for 633 Asian-Indian NAFLD patients with 451 U.S. NAFLD patients. Comparisons among the study cohort included clinical (i.e.: age, gender, BMI, diabetes, hypertension, etc.), biochemical tests (i.e.: liver function tests, lipid profile, fasting blood sugar), hepatic ultrasound and hepatic histology.

Results: The majority of U.S. NAFLD patients (82.3%) were over 40 years of age compared to 51.3% of Asian-Indian patients ($\chi^2=109.55$; $p<0.001$). There was significant difference in gender prevalence between U.S. (male 56.3%) and Asian-Indians (male 81.7%) ($\chi^2=82.442$; $p<0.001$). U.S. patients had higher rates of obesity (BMI 32.6 ± 5.3 kg/m² versus 26.2 ± 3.4 kg/m²; $p<0.001$). With respect to co-morbid conditions, U.S. patients had a higher prevalence of both diabetes and hypertension (diabetes 42.1% vs. 33%, and hypertension 56.8% vs 29.7%, respectively; $p<0.001$). U.S. NAFLD patients have significantly