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Giant Cell Arteritis Among Hispanic Americans

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Abstract

Purpose—To compare the prevalence and clinical course of giant cell arteritis (GCA) among Hispanic and non-Hispanic patients.

Design—Comparative Case Series

Methods—257 consecutive patients who underwent temporal artery biopsy in our institution from 1996 to 2002 were studied. A prospective telephone survey was conducted to determine race and Hispanic origin separately using methodology of the U.S. Census Bureau.

Results—134 patients complete the interview with 65 (49%) identifying themselves as Hispanic and 69 (51%) as non-Hispanic. Of the 32 respondents with biopsy-proven GCA, all identified themselves racially as white, and 13 (41%) were Hispanic and 19 (59%) were non-Hispanic ($p=0.32$). Significant differences in age, presenting symptoms, and final visual acuity were not observed among Hispanic and non-Hispanic GCA patients.

Conclusions—Although GCA has been reported to be rare in Hispanics, we found the prevalence and clinical course of GCA to be similar in Hispanic and non-Hispanic patients.

Giant cell arteritis (GCA) occurs more commonly in whites than in blacks and Asians and has been reported to be very rare in Hispanics.^{1–4} However, “Hispanic” is a general label, and a self-designation of “Hispanic” and racial designations such as “white”, “Black”, and “native American” are not mutually exclusive. In addition, the incidence of GCA in Spain is moderate.⁵ Therefore, GCA may not be uncommon in Hispanics. This prompted us to examine the prevalence and clinical course of biopsy-proven GCA among Hispanic and non-Hispanic patients at our institution.

After institutional review board approval, a telephone survey was conducted to contact all patients who underwent temporal artery biopsy between January 1, 1996 and December 31, 2002 at our institution. Patients were excluded if they did not give consent, were not able to

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be contacted, or did not complete the interview. Verbal consent approved by the institutional review board was obtained at the beginning of the interview. Patients were administered a modified portion of the National Health Interview Survey consistent with the methodology of the U.S. Census Bureau which considers race and Hispanic origin to be two separate and distinct concepts.⁶ The patient was asked to self-designate his or her race as one or a combination of the following: white, Black/African-American, American Indian (Native American), Alaska Native, Native Hawaiian, Guamanian, Samoan, Other Pacific Islander, Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, other Asian, or “some other race”. The patient was then asked to self-designate himself or herself as Hispanic or non-Hispanic. If the patient was Hispanic, the patient was asked to identify himself or herself as one of the following: Mexican/Mexican-American/Chicano, Puerto Rican, Cuban/Cuban-American, Dominican (Republic), Central or South American, other Latin American, other Hispanic/Latin, or “other Latin American or other Hispanic/Latino”. Primary outcome measures were race and Hispanic origin as well as presenting symptoms and final visual acuity.

For the study period, 257 patients underwent temporal artery biopsy, and 44 (17%) patients had positive biopsy. Of the 257 patients, 119 patients were unable to be contacted by telephone and 4 patients refused to consent to the interview. The Table summarizes the results of the 134 patients who completed the interview. Rates of positive temporal artery biopsy were similar among Hispanic and non-Hispanic patients (20% vs. 28%, $p=0.32$). The mean ages of Hispanics and non-Hispanics undergoing biopsy were, respectively, 75 (SD=9) and 75 (SD=7) years ($p=0.76$, two-sample t-test). The medical records of the 32 patients with biopsy-proven GCA were reviewed, and no significant differences in age, presenting symptoms, and final visual acuity among Hispanic and non-Hispanic GCA patients were found.

In contrast to previous studies that suggested GCA to be rare in Hispanics, we found a similar prevalence and clinical course of GCA among Hispanic and non-Hispanic cases. This is likely because we determined race and Hispanic origin separately by a prospective survey rather than through retrospective record review. Another possible explanation may be the genetic differences among Hispanic groups. Eleven of our 13 Hispanic GCA patients were Cuban-Americans. The gene pool contribution for Cuban-Americans is estimated to be 62% Spanish, 18% Native American and 20% African while estimates for Mexican-Americans are 61%, 31% and 8%, respectively.⁷

Potential weaknesses of our study include that this is not a population-based study and the 48% rate of non-completion of the interview. However, there was no significant difference between those completing the interview and those who did not with respect to mean age (75 [SD=8] versus 73 [SD=13]; $p=0.14$, two-sample t-test) or female gender ($N=100$ [78%] versus $N=97$ [80%]; $p=0.76$, Fisher's exact test). Patients who completed the interview were more likely to have a positive temporal artery biopsy ($p=0.003$, Fisher's exact test) in part because patients with positive biopsy had longer clinical follow-up and more updated contact information.

In conclusion, our results underscore the fact that a diagnosis of GCA should not be excluded solely on the basis of race, ethnicity, or Hispanic origin.

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Table

Race and Ethnicity of Patients Who Underwent Temporal Artery Biopsy, 1996–2002

Race	Hispanic (n=65)		Non-Hispanic (n=69)		Total
	Positive Biopsy	Negative Biopsy	Positive Biopsy	Negative Biopsy	
White	12**	50	19	42	123
White / Other	1***	2	0	1	4
Black / African American	0	0	0	5	5
Black / Haitian	0	0	0	2	2
Total	13*	52	19*	50	134

* Rate of positive biopsy between Hispanic and non-Hispanic, 20% vs. 28%, $p=0.32$

** 11 (92%) Cuban-American, 1(8%) from Spain

*** White and Native Nicaraguan