LETTERS TO THE EDITOR

RE: “GEOGRAPHIC VARIATION IN SARCOIDOSIS IN SOUTH CAROLINA: ITS RELATION TO SOCIOECONOMIC STATUS AND HEALTH CARE INDICATORS”

The recent report by Kajdasz et al. (1) presented data which suggested that geographic variation (proximity to the Atlantic coastline) accounts for 52 percent of the variation in sarcoidosis hospitalization rates among African Americans. However, because the aim of the study was to assess population characteristics of individuals with sarcoidosis in relation to geographic disease patterns, it would seem important to address disease patterns relative to other geographic factors, such as population density. This issue was not addressed. Population density, as opposed to the unique geophysical properties of South Carolina, is a factor that may be more generalizable across other environments with increased sarcoidosis rates.

A ubiquitous problem in sarcoidosis research concerns the definition of disease cases, which in this study was based on hospital discharge records. The authors were thorough in pointing out the limitations of their sampling strategy, and they offered numerous alternative explanations for the data (1). The exclusion of acute, nonhospitalized cases reduced the informativeness of the sample in that potential associations between geography and severity could not be detected. For example, a hypothetical association between coastal proximity and acute sarcoidosis in Caucasians might explain the nonsignificant regional association in Caucasians after adjustment for general hospital usage, presumably because a large proportion of these persons with acute cases would not have sought hospital treatment. Therefore, in future studies, investigators must employ broader sampling strategies that include nonhospitalized cases, in order to minimize this inherent selection bias. As Kajdasz et al. noted (1), a more descriptive disease definition would allow for comparison of geographic disease patterns with diagnostic criteria, symptomology, and course.

The effort of these authors to detect associations between geographic disease patterns and population characteristics represents an essential strategy for restricting the search for causative factors in sarcoidosis. In keeping with the authors’ recommendations, future research must further pursue whether geographic variation is a risk factor or confounding variable, perhaps through case-control studies.

REFERENCE


THE AUTHORS REPLY

We concur with Dr. Rasmussen (1) regarding the importance of further research on the factors associated with sarcoidosis. Case-control studies are appropriate for such research. In fact, a multisite study, A Case Control Etiology of Sarcoidosis Study (ACCESS), has been implemented (2) to address many of the issues described.

As Dr. Rasmussen proposes, population density can be a useful measure in the study of sarcoidosis. In particular, this measure is important as related to rural-urban exposures and behaviors. The analyses in our paper used county population estimates as the denominator in the outcome variable, which effectively controlled for population density at the county level (3). While we did not include population density per se in our analyses, several factors associated with population density were included and were addressed in the analyses, including mean household income, percentage of individuals living below the poverty line, number of physicians per population, and insurance coverage (3). These factors did not explain all of the geographic variation in sarcoidosis.

Disease definition is important in the study of a disease like sarcoidosis. Further work is needed in this area. In the ACCESS study, an assessment system has been developed to address the diagnosis and phenotype of sarcoidosis cases (4). The use of hospitalization has several limitations that were addressed in our paper (3).

We appreciate the thoughtful comments of Dr. Rasmussen and agree that additional studies of the geographic variation of sarcoidosis are needed.

REFERENCES


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