

Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: <https://reachmd.com/programs/living-rheum/heart-disease-in-lupus-the-impact-of-rural-residence-on-hospitalizations/28635/>

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Heart Disease in Lupus: The Impact of Rural Residence on Hospitalizations

Announcer:

You're listening to *Living Rheum* on ReachMD. On this episode, we'll hear from Dr. Jasvinder Singh, a Senior Faculty member and Section Chief for Immunology, Allergy, and Rheumatology at Baylor College of Medicine in Houston, Texas. He is also a Staff physician at Michael E. DeBakey VA Medical Center. He will discuss disparities in heart attack hospitalizations between rural and urban areas among patients with systemic lupus erythematosus in the United States. Dr. Singh also presented on this topic at the 2024 American College of Rheumatology Convergence. Here's Dr. Singh now.

Dr. Singh:

Just to give you some background on this work that we did in myocardial infarction hospitalizations in systemic lupus erythematosus, also commonly known as lupus, we were mainly interested in this question because heart disease is the number one killer of people with lupus, and it has in the last two decades been the leading killer side by side with infections. And as more and more of our patients have longevity and we are closing in on the lifespan of lupus patients versus the general populations, our patients remain at risk both for heart disease in the usual fifth, sixth, and seventh decade of life, but in lupus, the heart disease starts almost in the second or third decade of life, getting accelerated and onsetting much earlier. So heart disease and heart attacks are a major killer of our young women with lupus, a group that this disease primarily affects.

So if you think about the study, we used the US National Inpatient Sample, which is the nationwide representative sample of all hospitalizations in the United States so it is what actually happens in US, so generalizability is beyond any question. It's a very powerful source of what leads to hospitalization for an American. Using this data set that's available to researchers, we examined people with lupus using the data from 2016 to 2019. The choice of the years was to avoid the COVID-19 period, which the onset in 2020, and to keep it most recent. The NIS data lags behind in calendar years by about a couple of years, so we used this most recent applicable data. And we were primarily interested in examining the question: Does living in a rural area in the US impact your likelihood of getting admitted with a heart attack or myocardial infarction? So we compared people with lupus, and we looked at the primary reason for hospitalization in people with lupus, primarily focusing on rural versus urban patient residents.

So what we find in this study is that after we control for a variety of demographics, such as age, sex, race, payer status, which is how people have insurance and payers covering their healthcare, social determinants of health, which primarily we used the zip code, and median income data, but we also used a key variable of need and dependence; there's need for social deficiencies in terms of access, in terms of income, in terms of safety, employment and those sorts of things; there's an indicated variable that's now available. In addition, we used and adjusted for hospital characteristics in terms of teaching versus nonteaching hospital, size geography, as well as patient comorbidity defined by the Charlson Index.

In a model where we adjusted for all these factors, we found that just the rural residence by itself was associated with almost twice the odds of hospitalization with myocardial infarction in people who lived with systemic lupus erythematosus in a rural versus urban area, so it's a pretty remarkable finding since you're examining for an independent association of rural patient residents with myocardial infarction and hospitalizations in people with systemic lupus erythematosus, commonly called lupus.

Announcer:

That was Dr. Jasvinder Singh discussing his session at the 2024 American College of Rheumatology Convergence that focused on rural-urban disparities in heart attack hospitalizations in people with systemic lupus erythematosus. To access this and other episodes in our series, visit *Living Rheum* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!