

Psoriasis Often Signals Metabolic Syndrome

BY MARY ANN MOON

FROM ARCHIVES OF DERMATOLOGY

Forty percent of patients with psoriasis were found to have the metabolic syndrome in a study of a nationally representative sample of more than 6,500 adults published online Dec. 20.

The prevalence of the metabolic syndrome was approximately twice

relationship between psoriasis and the metabolic syndrome, and that until now there have been no population-based data on the issue, Dr. Love and his colleagues used data from the National Health and Nutrition Examination Survey (NHANES) 2003-2006 to assess the prevalence of the metabolic syndrome and its components in psoriasis.

The study subjects included 2,456 adults (mean age 39 years) who did not have preexisting diabetes; 71 had psoriasis.

The prevalence of the metabolic syndrome was 40% among psoriasis patients, compared with 23% among patients without psoriasis.

The odds ratio for patients with psoriasis to have the metabolic syndrome was 2.16 on univariate analysis and 1.96 after the data were adjusted to account for po-

tential confounding factors.

When the investigators removed CRP levels from the analysis to cancel out the potentially confounding effect of inflammation, odds ratios did not change materially, Dr. Love and his associates reported (*Arch. Dermatol.* 2010 [doi:10.1001/archdermatol.2010.370]).

"When we applied these data to the 2008 U.S. census population estimate, 6.6 million (95% CI, 4.8-8.3) individuals aged 20-59 years were estimated to have psoriasis in the United States, and 2.7 million (95% confidence interval, 1.6-3.6) of these individuals with psoriasis were estimated to have the metabolic syndrome, an excess of 1 million patients compared with the expected value among individuals without psoriasis," according to the researchers.

The most common feature of the metabolic syndrome to be found among psoriasis patients was abdominal obesity, which was present in 63%. Hypertriglyceridemia and low HDL-cholesterol levels also were common.

These findings indicate that "a diagnosis of psoriasis should trigger a high clinical suspicion [of] and investigation for a potential coexistence of the metabolic syndrome. If present, the syndrome needs to be recognized as a potentially more life-threatening factor than psoriasis given the serious associated complications," Dr. Love and his colleagues wrote.

This association with the metabolic syndrome also should be considered when choosing therapy for psoriasis. "For example, tumor necrosis factor blockers may decrease insulin resistance," they added. ■

VITALS

Major Finding: Of psoriasis patients, 40% have the metabolic syndrome, approximately double the rate found in adults who do not have psoriasis.

Data Source: Analysis of data from a cross-sectional health survey of a nationally representative random sample of 6,549 U.S. adults.

Disclosures: This study was supported in part by the National Institutes of Health, the Psoriasis Foundation, and the National Heart, Lung, and Blood Institute. One of Dr. Love's associates reported ties to Amgen, Abbott, Celgene, Centocor, Pfizer, and Novartis.

as high in psoriasis patients as in adults without psoriasis, even after adjustment for potential confounders such as age, sex, race/ethnicity, smoking status, and C-reactive protein levels.

"Given its associated serious complications, this comorbidity needs to be recognized and taken into account when treating individuals with psoriasis," reported Dr. Thorvardur Jon Love of Brigham and Women's Hospital, Boston, and his associates.

"Based on these data, it is estimated that of the 6.6 million adults (age range 20-59 years) with psoriasis in the United States, 2.7 million have the metabolic syndrome, or nearly a million more individuals than would be expected from individuals without psoriasis," according to Dr. Love and his coinvestigators.

The study findings may partially explain why previous research has found increased risks of cardiovascular and metabolic morbidity and mortality among psoriasis patients.

In particular, patients with severe psoriasis have been reported to be at an increased risk for myocardial infarction, stroke, and cardiovascular mortality, and have been reported to die 3-4 years earlier than people without psoriasis, the investigators added.

The metabolic syndrome is characterized by abdominal obesity, hypertriglyceridemia, low HDL cholesterol levels, hypertension, and high fasting glucose levels. Recent research has pegged the incidence of the disorder at 15%-24% in the general U.S. population.

Noting that there has been only one previous study examining the re-

Marijuana Smoking Appears Protective Against Diabetes

BY BRUCE JANCIN

FROM THE ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

DENVER – Marijuana use may be associated with a markedly decreased risk of diabetes.

A provocative new analysis of data from the Third National Health and Nutrition Examination Survey (NHANES III) indicates marijuana users had 66% lower odds of having diabetes after adjustment for numerous potential confounding factors, Dr. Magda Shaheen reported at the meeting.

This robust observed benefit has a biologically plausible mechanism, noted Dr. Shaheen.

In addition to defects in pancreatic beta-cell function and insulin sensitivity, the pathogenesis of diabetes is thought to involve systemic inflammation. Marijuana contains bioactive cannabinoids that have been shown to have an anti-inflammatory effect. This was borne out in the NHANES III analysis, where the prevalence of an elevated C-reactive protein level in excess of 0.5 mg/dL was significantly higher in nonusers of marijuana, at 18.9%, than in past users, with a 13% prevalence of elevated CRP, current light users (16%), or current heavy users of the illicit drug (9%), according to Dr. Shaheen of Charles R. Drew University of Medicine and Science, Los Angeles.

The study population consisted of 10,896 NHANES III participants aged 20-59 years; they constituted a statistically representative sample of the broader U.S. civilian population in 1988-94, when the survey was conducted.

The majority of subjects – 55% – reported never having used marijuana. Another 37% were past users, meaning they hadn't used marijuana during the previous month. The 6% of subjects who reported currently using the drug 1-4 days per month were categorized as current light users, while 3.3% of subjects were current heavier users.

The age-adjusted prevalence of diabetes in this cross-sectional study was 4% in nonusers and significantly lower at 3% in marijuana users.

Current and past users of marijuana were significantly younger, had a lower body mass index, and were more physically active than were nonusers. They were also more likely to smoke cigarettes, drink alcohol, and use cocaine. In addition, they were more likely to have an HDL level greater than 40 mg/dL and had lower mean total cholesterol, LDL, and triglyceride levels.

In a multiple logistic regression analysis adjusted for socio-demographic factors, comorbid conditions, laboratory values, and inflammatory markers, the marijuana



VITALS

Major Finding: The age-adjusted prevalence of diabetes was 4% in nonusers and significantly lower at 3% in marijuana users. In a multiple logistic regression analysis adjusted for socio-demographic factors, comorbid conditions, laboratory values, and inflammatory markers, marijuana users had a 66% lower likelihood of having diabetes.

Data Source: A cross-sectional study involving 10,896 NHANES III participants aged 20-59 years.

Disclosures: The study was funded by Omics Biotechnology, which is pursuing potential medical applications for nonpsychotropic cannabinoid receptor agonists. Dr. Shaheen declared she has no relevant financial relationships.

users were found to have a 66% lower likelihood of being diabetic. This benefit was confined to the 41- to 59-year-old age group, where the reduction in diabetes risk

associated with marijuana use was 67%. In contrast, the 7% reduction in risk among 20- to 40-year-olds was not statistically significant. These findings could be the result of the markedly higher occurrence of diabetes during middle age.

Unlike in diabetes, marijuana use was not associated with a lower prevalence of the other chronic diseases that Dr. Shaheen and coworkers looked at in which systemic inflammation also plays a role: myocardial infarction, heart failure, stroke, and hypertension.

"This was probably due to the lower prevalence of these diseases in this age group," she commented.

Dr. Shaheen noted that the lowest prevalence of diabetes was found in current light users of marijuana, although past users and current heavy users also had lower rates than did nonusers.

"This finding in light marijuana users is similar to the effect of alcohol on diabetes mellitus and the metabolic syndrome. Studies have shown that mild alcohol use was associated with a lower prevalence of diabetes and metabolic syndrome, and higher use was associated with a higher prevalence," she observed.

Dr. Shaheen stressed that as this was a cross-sectional study, it can't establish causality. The findings, while provocative, ought to be interpreted cautiously.

"Prospective studies need to be performed in rodents and humans to determine a causal relationship between cannabinoid receptor activation and diabetes.

Until those studies are performed, we do not advocate the use of marijuana in patients at risk for diabetes mellitus," the investigator stressed. ■

Marijuana use was not associated with a lower rate of MI, heart failure, stroke, and hypertension.

DR. SHAHEEN