

Retinopathy Tied to Diet In Type 1

BY MARY ANN MOON

Among African Americans with type 1 diabetes, high-caloric and high-sodium intakes were significantly and independently associated with progression of retinopathy, a longitudinal study has shown.

Restricting one's diet might be key to the preservation of vision in this patient population, wrote Dr. Monique S. Roy of the Institute of Ophthalmology and Visual Science at the New Jersey Medical School, Newark, and associates.

They noted that the role of diet as an important determinant of retinopathy progression had been assessed in only a few previous studies that did not include black populations.

Dr. Roy and associates analyzed data from a larger study of 725 African Americans with type 1 diabetes. Their analysis comprised 469 people (280 women and 189 men) who had participated in the 6-year follow-up study from 1999 through 2004. At baseline, the women had a mean age of 28 years, the men 27 years; they had completed a detailed food-frequency questionnaire; and they had undergone complete eye examinations, which were then repeated at follow-up. Baseline caloric intake was analyzed by quartiles. Total mean daily caloric intake was 2,310 and 1,706 kcal for men and women, respectively.

After adjustment for diabetic retinopathy clinical risk factors, high caloric intake was significantly associated with progression to proliferative diabetic retinopathy, macular edema, and severe retinal hard exudates (*Arch. Ophthalmol.* 2010;128:33-9).

These findings are consistent with those of a large clinical trial of predominantly white patients that total caloric intake is one of the strongest risk factors for retinopathy progression (*MedGenMed.* 2005;7:3). "As in our study, total caloric intake was also significantly and positively associated with higher glycosylated hemoglobin levels, one of the strongest risk factors for progression of diabetic retinopathy," the authors wrote.

"The increased metabolic burden and oxidative stress associated with hyperglycemia and dyslipidemia present in diabetes may be mechanisms underlying" this association. "The retina is particularly susceptible to oxidative stress because of its high lipid content," they wrote, adding that high sodium intake also was significantly and independently associated with the progression of diabetic retinopathy. The study subjects had a mean sodium intake of 3,235 mg daily compared with the 2,400 mg recommended by the American Diabetes Association.

The study was supported by the National Eye Institute, Bethesda, Md., and Research to Prevent Blindness Inc., New York. No financial conflicts of interest were reported. ■

CV Risk Factors Below Goal in Diabetics

BY BRUCE JANCIN

SNOWMASS, COLO. — Optimal control of cardiovascular risk factors in diabetic patients in the community setting remains an elusive goal, according to the most recent data from the Framingham Heart Study.

Individuals with diabetes have a two- to threefold greater rate of cardiovascular disease than do those without the disease. Aggressive control of their car-

diovascular risk factors is essential to overcome this markedly increased risk. But the Framingham experience demonstrates that it is not happening, Dr. Patrick O'Gara observed at a conference sponsored by the American College of Cardiology.

A bright spot is the low prevalence of cigarette smoking, down to just under 13% during 2000-2005 in 60-year-olds with diabetes in Framingham. That's even lower than the 17% smoking rate

among comparable-age individuals without diabetes.

This rejection of smoking by the Framingham diabetic population over the last 3 decades has been particularly impressive: The prevalence among 60-year-olds with diabetes has steadily fallen from nearly 42% during 1970-1979, to 27.5% in 1980-1989, 18% in 1990-1999, and down to 12.8% in the first half of the last decade, noted Dr. O'Gara of Brigham and Women's Hospital, Boston.



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