Diabetic Eye Disease Projected to Triple by 2050

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CHICAGO — Diabetic eye disease is expected to triple in the United States by the year 2050, investigators from the Centers for Disease Control and Prevention reported at the annual scientific sessions of the American Diabetes Association.

"The future changes in the number of people with diabetes and the U.S. population will likely lead to dramatic increases in the number of Americans with diabetic retinopathy, glaucoma, and cataract. Efforts to prevent, delay, and better manage the diabetes epidemic will help in reducing the burden of diabetes eye complications," said Dr. Jinan Saaddine and her associates in a poster presentation.

According to a recent estimate, there will be 48 million people diagnosed with diabetes by the year 2050 (Diabetes Care 2006;29:2114-6). Using that number, with data from the National Health Interview Survey and a series of articles on eye disease prevalence published in the April 2004 issue of the Archives of Ophthalmology, the authors projected that the number of people in the United States with diabetic retinopathy will increase from 5.5 million in 2004 to 16.0 million in 2050. The number with vision-threatening diabetic retinopathy is also expected to triple over that period, from 1.2 million to 3.4 million.

At the same time, the number of diabetic patients with cataracts will triple from 3.0 million to 9.9 million, and the number with glaucoma will more than quadruple, from 335,600 to 1,447,000, they predicted.

The increases in diabetic retinopathy are expected to be especially pronounced for those aged 65 years and older, with overall rates rising from 2.5 million to 9.9 million, and rates of vision-threatening disease from 0.5 to 1.9 million. Glaucoma among Hispanics with diabetes is also likely to rise particularly sharply, with a 12-fold increase in those aged 65 years and over. ■

Colesevelam Aids Glycemic Control

CHICAGO — The cholesterol-lowering drug colesevelam HCl improves glycemic control in patients with type 2 diabetes who are inadequately controlled with metformin monotherapy, Dr. Harold E. Bays reported in a poster presentation at the annual scientific sessions of the American Diabetes Association.

The bile acid sequestrant colesevelam HCl, sold under the name WelChol, has been approved in the United States for LDL cholesterol lowering since 2000. In January, WelChol's manufacturer, Daiichi Sankyo Inc., filed a supplemental new drug application with the Food and Drug Administration for a new glucose-lowering indication. Overall results of a pivotal randomized, placebo-controlled trial involving 316 adults with type 2 diabetes who were inadequately controlled with other oral agents, were presented earlier this year at a meeting of the American Association of Clinical Endocrinologists.

At that meeting, Dr. Bays, of Louisville (Ky.) Metabolic and Atherosclerosis Research Center Inc., presented the results of a subgroup analysis of the 155 patients who were on metformin monotherapy, in which 79 received 3.75 g/day of colesevelam and 76 took placebo. At week 26, the intent-to-treat analysis revealed a significant reduction in mean hemoglobin A_{1c} (HbA_{1c}) of 0.47% with colesevelam and a 17.8 micromol/L drop in fasting plasma glucose, both relative to placebo. Significantly more patients in the colesevelam group had reductions in HbA_{1c} of more than 0.7% by week 26 (41% vs. 22%).

Mean changes in laboratory parameters, vital signs, and weight from baseline were similar in the two groups. Drug-related treatment-emergent adverse effects occurred in 18% of the colesevelam group and 12% of the placebo group, but most were mild or moderate. The only serious adverse event occurred in a placebo subject.

A second poster, presented by Dr. Ronald B. Goldberg of the University of Miami, showed that colesevelam significantly improved lipid profiles in the 316 study patients with type 2 diabetes, including reductions from baseline of 16% for LDL cholesterol, 10% for non-HDL cholesterol, 7% for total cholesterol, and 8% for Apo B.

—Miriam E. Tucker