Metabolic Syndrome Linked to Earlier Strokes

BY ROBERT FINN San Francisco Bureau

atients with both type 2 diabetes and metabolic syndrome have strokes an average of 3.5 years earlier than do those who have type 2 diabetes alone, according to a study.

There were no significant differences between diabetes patients with and without metabolic syndrome in the type of stroke, with lacunar stroke predominating in both groups, wrote Imtiaz M. Shah and colleagues from Ayr (Scotland) Hospital (Diabetes Res. Clin. Prac. 2008;79:e1-e4).

The retrospective study involved 151 patients with metabolic syndrome and type 2 diabetes, and a control group of 92 patients with diabetes alone. All patients had experienced a stroke between September 1996 and August 2004. Patients were considered to have metabolic syndrome if they had two or more of the following additional risk factors: obesity, low HDL cholesterol, elevated triglycerides, or hypertension.

Patients with metabolic syndrome experienced their stroke at an average of 71.7 years of age, compared with 75.2 years among the control group. Other than the defining characteristics of metabolic syndrome, the only other significant difference between the groups was in the proportion taking statins (40% among patients with metabolic syndrome and 24% among the control group).

Lacunar stroke, an indication of small-

vessel disease, was responsible for 44% of strokes in both control patients and 44% of strokes in patients with metabolic syndrome. Transient ischemic attacks accounted for 39% of the strokes in control patients and 38% of the patients with metabolic syndrome; cortical strokes accounted for 15% and 13% of the strokes, respectively; and intracerebral hemorrhage accounted for 2% and 5% of the strokes.

The investigators stated that they had no conflicts of interest.



Humalog is for use in patients with diabetes mellitus for the control of hyperglycemia and should be used with a longer-acting insulin, except when used in combination with sulfonylureas in patients with type 2 diabetes.

Important Safety Information

Humalog is contraindicated during episodes of hypoglycemia and in patients sensitive to Humalog or one of its excipients. Safety and effectiveness in patients less than 3 years of age have not been established. There are no adequate and well-controlled clinical studies of the use of Humalog in pregnancy or nursing mothers.

A potential side effect associated with the use of all insulins is hypoglycemia. Hypoglycemia can happen suddenly, and symptoms may be different for each person and may change from time to time. Severe hypoglycemia can cause seizures and may be life-threatening. Glucose monitoring is recommended for all patients with diabetes. Other side effects may include: weight gain, hypokalemia, lipodystrophy, and hypersensitivity. Systemic allergy is less common, but may be lifethreatening. Because of the difference in action of Humalog, care should be taken in patients in whom these conditions may be clinically relevant (eg, those who are fasting, have autonomic neuropathy or renal impairment, are using potassium-lowering drugs, or taking drugs sensitive to serum potassium level). **Starting or changing insulin therapy should be done cautiously and only under medical supervision.**

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For complete user instructions, please refer to the full user manual provided with the Pen.

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* KwikPen Design Validation User Study included adult male and female participants with type 1 and type 2 diabetes. Of the total 150 study participants, 56 were insulin-naïve, 42 were currently administering insulin with a vial and syringe, and 52 were experienced insulin pen users.

Reference

1. Data on file, Eli Lilly and Company. HUM20071024A.

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