MÆDICA - a Journal of Clinical Medicine

JOURNAL CLUB

When lower is NOT better: diabetes trial halted for safety reasons

Alexandru BURLACU, MD

Cardiology Department, Emergency University Hospital, Bucharest, Romania

The ACCORD (Action to Control Cardiovascular Risk in Diabetes) Trial is evaluating three treatment approaches in order to determine the best ways to decrease the high rate of major CVD events – heart attack, stroke or death from CVD – among people with type II diabetes who are at especially high risk of CVD. These treatment approaches are: intensive lowering of blood sugar levels compared to a more standard blood sugar treatment; intensive lowering of blood pressure compared to standard blood pressure treatment; and treatment of blood lipids by a fibrate plus a statin compared to a statin alone.

The study began enrolling participants in 2001 and is taking place in 77 clinical sites across the United States and Canada. A total of 10,251 adults with established type II diabetes are participating in the trial. At enrollment, study participants had diabetes for an average of 10 years, and were at especially high risk for CVD events because they either already had diagnosed CVD or they had at least two CVD risk factors in addition to type 2 diabetes. The other CVD risk factors could be high cholesterol (high low-density lipoprotein cholesterol), high blood pressure, smoking, or obesity. ACCORD participant treatment is scheduled to end in 2009, and researchers plan to report the final results in 2010.

National Heart, Lung, and Blood Institute, which sponsors the ACCORD Trial, has announced on February 6, 2008, that the intensive blood glucose control sub-study has stopped due to safety concerns. This sub-study randomized patients to an intensive treatment program aiming normal blood glucose values and an A1C less than 6 % or a standard treatment program with an A1C between 7 % and 7.9 %. The intensive participants in ACCORD are now being switched to the standard treatment program because of an increased death rate in the intensive treatment program (14 deaths per 1000 patients per year versus 11 per 1000 patients per year in the standard treatment program; a difference of 0.3 deaths per 100 patients per year). The other two concurrent sub-trials of management strategies for cholesterol and hypertension will continue as planned.

Why a better glucose control is corelated with a greater risk for death remains unclear. This decission raise questions about the intensity of and the targets for glucose-lowering treatment in patients with type II diabetes and high risk for CVD , but for the moment it does not modify the actual guidelines or treatment strategies for diabetic patients, as American Diabetes Association declares.

Comment on the paper:

For Safety, NHLBI Changes Intensive Blood Sugar Treatment Strategy in Clinical Trial of Diabetes and Cardiovascular Disease

NHLBI Press Release, February 6, 2008 (http://public.nhlbi.nih.gov/newsroom/home/GetPressRelease.aspx?id=2551)