UT SOUTHWESTERN MEDICAL CENTER NEWS

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# UT Southwestern study shows treating diabetes early, intensively is best strategy

DALLAS – June 28, 2012 – Intensive early treatment of type 2 diabetes slows down progression of the disease by preserving the body's insulin-producing capacity, a UT Southwestern Medical Center study has shown.

"We can potentially change the course of this prevalent disease, which would represent a breakthrough," said Dr. Ildiko Lingvay, assistant professor of internal medicine and author of the study published online in *Diabetes Care.* "The intensive treatment regimen we propose is different from the stepwise approach recommended in standard guidelines."

As one of the fastest-growing diseases in the U.S., diabetes afflicts an estimated 25.8 million children and adults, or 8.3 percent of the population, according to the American Diabetes Association. A study by *Population Health Management* projects the number of diabetes cases to nearly double by 2025.

The UT Southwestern study was selected for presentation at the recent American Diabetes Association's Diabetes Care Symposium and will be published in the July print issue of ADA's *Diabetes Care*.

While intensive treatment has been the standard at UT Southwestern for at least a decade, the industry norm has been to emphasize lifestyle changes first. The American College of Physicians, for example, suggests losing weight and dieting before drug treatment. The ADA recommends similar lifestyle changes, plus the use of metformin – the standard drug used to treat type 2 diabetes – for those newly diagnosed.

"We believe that the stepwise approach exposes patients to long periods of high blood sugar, which leads to complications," Dr. Lingvay said. "Unless dietary changes are significant and sustained long-term, diabetes is a progressive disease in which the body's ability to produce insulin declines."

If a patient can maintain insulin production, she explained, the disease is easier to manage. The study showed intensive treatment with insulin, followed by one of two drug regimens, enabled diabetes patients to maintain steady insulin-producing beta-cell function for three and a half years after diagnosis.

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"This finding was true, regardless of the method used to attain intensive control," Dr. Lingvay said. "Intensive treatments led to excellent control of blood-sugar levels, they were well-tolerated, safe, and had good compliance."

In the UT Southwestern clinical trial, participants were randomly divided into two groups. Both groups first had three months of treatment with insulin and the anti-diabetes drug metformin. After that, one group took three types of diabetes medications daily, while the other continued the insulin and metformin treatment. Out of 63 initial trial recruits, 58 completed the study and are still being tracked for six-year results.

Dr. Lingvay said the study did not show that any single regimen worked better than another; both intensive treatment regimens were just as effective.

"The point is that whatever you choose, make sure it's intensive," she said. "We have shown that this preserves beta-cell function, and that's the key in changing the course of the disease."

Other UT Southwestern researchers involved in the study were Dr. Lindsay Harrison, an endocrinology fellow; Beverley Adams-Huet, assistant professor in clinical sciences and internal medicine; and Dr. Philip Raskin, professor of internal medicine.

The research was supported by grants from the National Institutes of Health and Novo Nordisk Inc., a supplier of insulin. Novo Nordisk played no role in the study design, conduct, analysis, preparation, or final approval.

Visit www.utsouthwestern.org/endocrinology to learn more about UT Southwestern's clinical services in endocrinology, including diabetes.

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