**Some DMARDs for RA or Psoriasis Blunt Risk of Diabetes**

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significant (Lancet 2011 June 27 [doi:10.1016/S0140-6736(11)60895-7]).

Importantly, however, there were no adverse events. “What we’ve learned is that some of [the agents being tested] don’t work in new-onset diabetics but they are safe. So, they might work earlier in the disease process for prevention. Whether we need a combination of things to really arrest the disease process is another open question,” said Dr. Skyler, professor of medicine, pediatrics, and psychology at the University of Miami.

The other TriNetX study involved abatacept (Bristol Myers Squibb’s Orenzina), which modulates T-cell co-stimulation and prevents full T-cell activation. Orenzina is currently on the U.S. market for treating adult rheumatoid arthritis and juvenile idiopathic arthritis. In the study, 112 patients were randomized to treatment with either abatacept (77 patients) or placebo (35 patients) intravenous infusions on days 1, 14, 28, and monthly for a total of 27 infusions over 2 years (Lancet 2011 June 27 [doi:10.1016/S0140-6736(11)60886-6]).

Here, there was a significant difference between groups, with the AUC for C-peptide 59% higher with abatacept than placebo at 2 years, and the estimated delay per day. The primary end point did not differ between the two groups, with 19.8% in the teplizumab group and 20.4% of placebo patients achieving the combined end point at 1 year, said Dr. Nicole Sherry, director of the Diabetes Center at Massachusetts General Hospital for Children in Boston (Lancet 2011 June 28 [doi:10.1016/S0140-6736(11)60931-8]).

However, 5% of the 513 study patients no longer required insulin at 1 year, compared with none of those who received placebo. Moreover, in a post hoc analysis, C-peptide was preserved or increased in 40% of those who received the 14-day regimen of the drug, compared with just 28% of the placebo group. Children were more likely than were adults to retain C-peptide function, as were patients treated within 6 weeks of diagnosis. Adverse events were similar between the two groups.

A phase III study of the anti-CD3 drug otelixizumab in 240 newly diagnosed type 1 diabetes patients also produced negative findings. The dose—one-sixteenth of that used in previous trials—had been chosen to reduce adverse events seen previously, particularly Epstein-Barr virus activation. The low dose was not effective in preserving C-peptide. This study, dubbed DE-FEND, was funded by Tolerx, from the Juvenile Diabetes Research Foundation. “This is an important new drug,” said Dr. Orban. “It might work earlier than any other important pathway.” Further studies will try to increase that dosage to duplicate the previous efficacy with fewer side effects,” said Dr. Peter Gottlieb, professor of medicine and pediatrics at the University of Colorado, Denver.

Another compound under study, DiaPep277, was developed with the goal of preventing beta-cell destruction. Created by the removal of 24 of 500 amino acids from a “heat shock” protein involved in beta-cell destruction via T-cell activation, DiaPep277 had been shown to change destructive T cells into cytokine-secreting protective T cells in mouse models of type 1 diabetes. In one phase II study, injections of DiaPep277 in 100 newly diagnosed type 1 patients preserved beta-cell insulin secretion for up to 2 years, said Dr. Raz, professor of medicine and director of the Hadassah Diabetes Center in Jerusalem, Hadassah Hebrew University Hospital.

Dr. Skyler is an advisor and/or is a shareholder of Amgen, Circulat Biotech, Dexcom, Ideal Life, Inspire Pharmaceuticals, Moereax Matrix, and Tandem Diabetes Care. Dr. Gitelman and Dr. Sherry stated that they have no disclosures. Dr. Orban is on the data safety monitoring board for Osiris Therapeutics and is a founder of and Orban Biotechs LLC. Dr. Gottlieb receives research funding from Tolerx, GlaxoSmithKline, MacroGenics, and Diamyd. Dr. Raz is a board member of, adviser for, is on the speakers bureau, or is a consultant for AstraZeneca LP, Bristol-Myers Squibb, Novo Nordisk Pharma Ltd., Roche Pharmaceuticals, and Andromeda.

**To see an interview with Dr. Skyler, scan this QR code using your smartphone.**

**Major Finding:** The hazard ratios for diabetes were 0.62 for patients taking TNF inhibitors and 0.54 for patients taking hydroxychloroquine, compared with patients taking nonbiologic DMARDs to treat their rheumatoid arthritis or psoriasis.

**Data Source:** A retrospective observational study involving 13,905 adults who had either RA or psoriasis who received a DMARD and were followed for approximately 6 months for the development of diabetes. Participants were enrolled in one of two health care systems.

**Disclosures:** This study was supported by Amgen. Dr. Solomon reported ties to Abbott, Amgen, Bristol-Myers Squibb, and Janssen; and investigators reported ties to numerous industry sources.

**VITALS**

**S有一些类风湿性关节炎或银屑病相关的抗炎药物可减少新发病患者的感染风险。**

在一项回顾性研究中，研究人员调查了在指定了类风湿性关节炎或银屑病患者的医疗记录中，至少有一张处方为DMARD的患者。他们发现，DMARDs之间的分组差异如RA或Psoriasis与患者的胰岛素抵抗和降低发病率的关系。这些抗炎药物可能有助于防止新发病患者中出现新发病。