A diabetes outcome progression trial (ADOPT): an international multicenter study of the comparative efficacy of rosiglitazone, glyburide, and metformin in recently diagnosed type 2 diabetes.

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OBJECTIVE: Therapies with metformin, sulfonylureas, or insulin improve glycemic control in the short term but do not prevent progressive islet beta-cell failure or long-term deterioration in glycemia. Our goal was to evaluate, in patients recently diagnosed with type 2 diabetes (<3 years), the long-term efficacy of monotherapy with rosiglitazone on glycemic control and on the progression of pathophysiological abnormalities associated with type 2 diabetes as compared with metformin or glyburide monotherapy. RESEARCH DESIGN AND METHODS: A Diabetes Outcome Progression Trial (ADOPT) is a randomized, double-blind, parallel-group study consisting of a screening visit, a 4-week placebo run-in, a 4-year treatment period, and an observational follow-up of approximately 3,600 drug-naive patients with type 2 diabetes diagnosed within the previous 3 years. After run-in, patients will be randomized to rosiglitazone, glyburide, or metformin titrated to the maximum effective daily doses (8 mg rosiglitazone, 15 mg glyburide, or 2 g metformin). The primary outcome is time to monotherapy failure, defined as the time following titration to the maximal effective or tolerated dose when fasting plasma glucose exceeds 180 mg/dl (10 mmol/l). Secondary outcomes include measures of islet beta-cell function, insulin sensitivity, dyslipidemia, changes in urinary albumin excretion, plasminogen activator inhibitor-1 antigen, fibrinogen, and C-reactive protein. Safety and tolerability will also be evaluated. Patient-reported outcomes and resource utilization data will be collected and analyzed. CONCLUSIONS: ADOPT will provide data on the effect of mechanistically differing treatment options on metabolic control, beta-cell function, and markers of macrovascular disease risk in type 2 diabetes.