JOURNAL WATCH

Highlights from the most important research articles across the spectrum of topics relevant to the field of diabetes management



News & Views

News

Journal Watch

Lipska KJ, Inzucchi SE, Van Ness PH *et al.;* for the Health ABC Study. Elevated HbA1c and fasting plasma glucose in predicting diabetes incidence among older adults: are two better than one? *Diabetes Care* doi:10.2337/dc12-2631 (2013) (Epub ahead of print).

Using participants from the Health ABC study, the authors evaluated whether impaired fasting glucose, or elevated HbA1c, or both, was a better indicator of diabetes incidence in older adults. In total, 10.8% (183) of the 1690 nondiabetic individuals that were recruited had developed diabetes by the 7-year follow-up. When compared with individuals with fasting plasma glucose <100 mg/dl, the adjusted odds ratios of diabetes was 6.2 (95% CI: 4.4-8.8) for individuals with impaired fasting glucose. When compared with individuals with HbA1c <5.7%, the adjusted odds ratios of diabetes was 11.3 (95% CI: 7.8-16.4) in individuals with elevated HbA1c. The odds ratio was 3.5 (95% CI: 1.9-6.3) in those with impaired fasting glucose only, 8.0 (95% CI: 4.8-13.2) in those with elevated HbA1c only and 26.2 (95% CI: 16.3-42.1) in those with both impaired fasting glucose and elevated HbA1c. It was observed that individuals with both impaired fasting glucose and elevated HbA1c had an increased chance of developing diabetes. Overall, the results suggest that combined screening of fasting plasma glucose and HbA1c in older individuals may highlight those at high risk of developing diabetes.

Sander B, Larsen M, Andersen EW, Lund-Andersen H. Impact of changes in metabolic control on progression to photocoagulation for clinically significant macular oedema: a 20 year study of Type 1 diabetes. *Diabetologia* 56(11), 2359–2366 (2013).

Sander et al. carried out a retrospective review of individuals with Type 1 diabetes to assess whether the incidence of clinically significant macular edema is affected by changes in glycemia and arterial blood pressure. The individuals recruited were patients who had attended the retinopathy screening clinic at the Steno Diabetes Center (Gentofte, Denmark) between 1988 and 2008. In total, 1878 individuals were analyzed using the end point of first referral for photocoagulation to treat diabetic macular edema. Metabolic control and systolic blood pressure were both demonstrated to be independent risk factors for progression to diabetic macular edema requiring photocoagulation therapy. The authors suggest that future research should assess how diabetic retinopathy is affected by hemodynamic and metabolic stability.

Miller ME, Williamson JD, Gerstein HC et al.; for the ACCORD Investigators. Effects of randomization to intensive glucose control on adverse events, cardiovascular disease and mortality



in older versus younger adults in the ACCORD trial. *Diabetes Care* doi:10.2337/dc13-1545 (2013) (Epub ahead of print).

Using participants from the ACCORD trial, the authors assessed whether different treatment intensities affected mortality, severe adverse outcomes and major cardiovascular outcomes in elderly and younger individuals. Overall, 10,251 Type 2 diabetics (mean age: 62 years) were randomized to receive treatment targeting either HbA1c <6.0% (42 mmol/mol) or 7.0–7.9% (53–63 mmol/mol). The authors noted that both younger and older groups had similar HbA1c levels in both arms. The younger group that received intensive treatment had an increased risk of cardiovascular mortality compared with the standard intensity group, whereas treatment intensity did not affect cardiovascular mortality in the older population (HR: 1.71 vs 0.97; p = 0.03). Within both treatment arms, the younger group had lower annual rates of severe hypoglycemia compared with the older group (2.45% in the intensive and 0.80% in the standard younger groups vs 4.45% in the intensive and 1.36% in the standard older groups).

- All stories written Natasha Leeson