

Update in Internal Medicine: Intensive Glucose Lowering Does Not Reduce Mortality in Type 2 Diabetes Mellitus

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After several large RCTs did not succeed in showing mortality or cardiovascular benefits with intensive glucose control in patients with type 2 diabetes mellitus, two recent metaanalysis confirmed this (1,2).

They were performed on 14 and 13 randomized controlled trials, including 28,600 and 34,500 patients, respectively.

The risks of myocardial infarction, a composite of microvascular outcomes, and retinopathy were decreased with intensive control, but the information size was not sufficient to confirm these benefits. Cardiovascular mortality was not decreased, but this result may change with future study.

We are confident now that intensive control of blood glucose does not lengthen life or decrease nephropathy risk, but doubles the occurrence of hypoglycemia severe enough to warrant intervention. Tight glucose control slightly reduces microvascular complications, and does not improve quality of life.

However, the evidence is, as always, somewhat incomplete. The mean follow-up of 5

years may be too short to show reductions in mortality, and most patients in this analysis had long-standing diabetes mellitus, sometimes with vascular disease, and we cannot exclude the possibility that intensive glucose control may benefit patients with newly diagnosed diabetes and no preexisting vascular disease. Metformin have been shown to have pleiotropic effects, decreasing the mortality independent of glycemic control.

The findings of these two metaanalysis tell us that a generalized strategy of intensive glucose control is not beneficial in type 2 diabetes mellitus. Recent recommendations from the American Diabetes Association suggest an individualized approach, trying a more tight glucose control in patients with recently diagnosed diabetes, long life expectancy, and no significant cardiovascular disease or microvascular complications, with less stringent goals for the others. In fact, only intensive blood pressure control, lipid lowering and smoking cessation were showed to reduce mortality in these patients, and should be the primary goals.

REFERENCES

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