INSULIN PROVISION THERAPY AND INCREASED MORTALITY IN ELDERLY PATIENTS WITH DIABETES MELLITUS AND STABLE ISCHEMIC HEART DISEASE: INSIGHTS FROM BARI-2D TRIAL

Oral Contributions
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Background: Optimal management of diabetes mellitus (DM) in very old adults is uncertain. Using data from the Bypass Angioplasty Revascularization Investigation 2 Diabetes (BARI 2D) trial, we analyzed the effects of insulin provision (IP) vs. insulin sensitizing (IS) therapy in old adults (OA) (age ≥ 75 years) with type II DM and stable ischemic heart disease (IHD).

Methods: Patients were randomized to: 1. IP versus IS therapy for glycemic control and to 2. revascularization with intensive medical therapy (IMT) versus IMT alone. The primary end point was all-cause-mortality.

Results: 2,368 patients were studied; 182 (8%) were OA. Compared to younger adults (YA), OA were more likely to have a history of CVA (16% vs. 9%, p=0.006), EF <50% (16% vs. 9%, p=0.006), and higher median creatinine (1.2 vs. 1.0 mg/dL, p<0.001). YA and OA were similar with respect to clinical and angiographic variables. OA patients treated with IP (versus IS) had higher all-cause-mortality (HR = 1.65, 95% CI 0.99-2.72, p=0.050) and esp. cardiovascular death (HR 2.67, 95% CI 1.05-6.79, p=0.039). By multivariable analysis, OA treated with IP were at increased risk for all-cause-mortality during >7 years follow-up (HR 1.95, 95% CI 1.12-3.38, p=0.018). No mortality difference between IP and IS was observed in YA.

Conclusion: These data from a prospective RCT suggest that IP therapy is associated with higher mortality risk in patients ≥75 years with DM and IHD. Additional studies are needed to define optimal therapy for DM in older patients with IHD.

[Graph: All-cause Mortality in Older Adults (≥75 years)]

Adjusted for (s. creatinine, s. LVEF, insulin level, HgA1C, DM duration, revascularization jeopardy score)