Cardiovascular News

Metformin linked to reduced mortality in diabetic patients with HF

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MedWire News: Metformin is associated with reduced mortality in patients with heart failure (HF) and diabetes, Canadian researchers report in the *British Medical Journal*.

HF is common in diabetic patients, but few studies have compared the effect of antidiabetic drugs in patients with both conditions, the authors say.

Jeffrey Johnson, from the University of Alberta in Edmonton, and colleagues therefore carried out a meta-analysis of eight studies to evaluate the effects of antidiabetic agents in patients with HF and diabetes.

Four studies evaluated the effect of insulin treatment, three examined metformin, four evaluated thiazolidinediones, and two studies compared sulfonylureas with other agents.

Insulin use was associated with increased risk for all cause mortality in studies that did not adjust for diet and antidiabetic drug treatment (odds ratio [OR]=1.25), and in the studies that accounted for these factors (hazard ratio [HR]=1.66).

In contrast, all cause mortality was significantly lower in patients treated with metformin, at a HR of 0.86 compared with other antidiabetic drugs and insulin, and at a HR of 0.70 compared with sulfonylureas.

In addition, metformin was not associated with increased hospital admission at 1 year for any cause (HR=0.94) or for HF (HR=0.92). The pooled effect suggested that treatment with metformin might be linked to a reduced all cause hospital admission at 1 year (pooled OR=0.85).

Thiazolidinediones were associated with reduced all cause mortality (pooled OR=0.83), but they were also linked to an increased risk for hospital admission for HF (pooled OR=0.83). The researchers note that this conflicting result might be due to differences in comparator treatments.

Johnson and co-workers conclude: "Our analysis revealed that treatment with metformin may be associated with lower mortality rates."

Nevertheless, they note that the US Food and Drug Administration still recommends cautious use of metformin in this population.

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