

DIABETES

Elevated nocturnal blood pressure and cardiovascular risk

Masked (nocturnal) hypertension is common in patients with type 2 diabetes mellitus. “In our cohort of middle-aged patients with type 2 diabetes, 30% of patients with normal clinic blood pressure had elevated nocturnal blood pressure,” says lead researcher Magnus Wijkman from Linköping University, Sweden. Such information can serve as a marker to predict the risk of cardiovascular morbidity and mortality.

Masked hypertension—normal blood pressure in the clinic, but elevated blood pressure levels when measured outside the clinic—is associated with an increased risk of cardiovascular disease. Wijkman notes that “previous epidemiological studies show that the nocturnal blood pressure levels correlate more closely than the day-time blood pressure levels with the risk of cardiovascular disease”.

Wijkman and colleagues assessed data from the CARDIPP study (Cardiovascular Risk Factors in Patients with Diabetes—a Prospective Study in Primary Care) on 414 patients (aged 55–65 years) with type 2 diabetes mellitus, of whom 100 had normal blood pressure (defined as <130/80 mmHg) in the clinic. The patients with masked nocturnal hypertension had higher aortic pulse wave velocity and higher central blood pressure than those with normal blood pressure both in the clinic and at night. This finding “suggests that clinical blood pressure measurements may not provide sufficient information in patients with type 2 diabetes mellitus,” Wijkman comments.

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Original article Wijkman, M. *et al.* Masked nocturnal hypertension—a novel marker of risk in type 2 diabetes. *Diabetologia* 52, 1258–1264 (2009).