β blocker inducing a decrease in glucose disposal mediated by insulin and eventually ends with an increased burden of risk factors for ischaemic heart disease. During this course of events an increased serum triglyceride concentration, decreased serum high density lipoprotein cholesterol concentration, and impaired glucose tolerance or diabetes are direct consequences of insulin resistance and hyperinsulinaemia. People who already have some resistance to insulin when essential hypertension is detected may be particularly susceptible to environmental influences that increase the resistance.

The metabolic side effects shown in this study are small, but as 30-50% of people over 60 are treated for hypertension in Sweden the effects of antihypertensive treatment on the incidence of ischaemic heart disease in the whole community should not be underestimated. The association between antihypertensive treatment and resistance to insulin should be subject to further studies. Non-pharmacological treatments for hypertension should also be investigated, especially as such treatment may influence other risk factors for cardiovascular disease and death.

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