

EPIDEMIOLOGY OF THE INSULIN RESISTANCE SYNDROME IN BELGIAN ADULTS-MONICA BELLUX.

A. SAINT-REMY, D. BECK, P. LEFEBVRE, M. JEANJEAN, G. RORIVE

CHU- LIEGE-BELGIUM

Resistance to Insulin-stimulated Glucose uptake has been proposed as a common denominator of several coronary artery disease (CAD) risk factors such as Hypertension, Obesity, Impaired Glucose tolerance and dyslipidemia.

The prevalence and the links between these disorders have been evaluated in a random sample of 1949 adults (35-64 years old) living in the province of Luxembourg screened for the MONICA Project.

According to the distribution of fasting Insulinemia (divided in quartiles), we observed, for both sexes, trends towards significant increasing prevalence of Hypertension, Obesity, Impaired Glucose tolerance, Hypercholesterolemia, Low HDL cholesterol and Hypertriglyceridemia. Taken together (except for hypercholesterolemia), the occurrence of all these disorders (included in the Syndrome X definition) in the same individual has not been encountered in the present population. However, the prevalence of the cluster of 2 (Hypertension and Obesity) or 3 (Hypertension, Obesity and Impaired Glucose tolerance) CAD risk factors increases with high Insulinemia levels. After adjustment of Insulin for major confounders effects of age and BMI, a positive and significant relation was found between Blood Pressure (BP) and fasting Insulin in untreated women ($p=0.008$ for SBP and $p=0.017$ for DBP). Further analysis indicate that the relation concerned lean individuals ($BMI<29$) but not obese one.

In conclusion, Insulin levels are positively associated with major CAD risk factors suggesting a common link between them. That hypothesis is reinforced by the finding of a relation between BP and Insulin independently of age and BMI. We failed to identify complete syndrome X in that particular population which is not however free of cardiovascular risk factors clustering.