

Concurrent Session 3

Clustering of risk factors, metabolic syndrome, and coronary heart disease risk in hypertensive patients

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Background - Hypertension and cardiovascular risk factors increase the risk of developing coronary heart disease. This study investigates the risk factors and metabolic syndrome present in hypertensive individuals.

Objective - To determine the common clustering of risk factors, prevalence of metabolic syndrome, and coronary heart disease risk among hypertensive individuals

Design - This is a descriptive cross-sectional pilot study done in Internal Medicine and Cardiology clinics of UP-Philippine General Hospital. Adult hypertensive patients and household members were recruited and screened for hypertension, diabetes, dyslipidemia, obesity, smoking, sedentarism, and metabolic syndrome (MetS: based on NCEP III criteria with IAS modification for Asians). Outcomes included proportion of individuals with combination of risk factors, prevalence of metabolic syndrome, and estimated coronary heart disease (CHD) risks using the Framingham risk prediction algorithm.

Outcomes - A total of 134 hypertensive individuals (100 patients and 34 household members) were included (age 56.11 years, BMI 25.14.4 kg/m²). Dyslipidemia was most prevalent risk factor followed by sedentarism, obesity, diabetes, and active smoking. Reduced HDL level was most common form of dyslipidemia. In hypertensive patients, having at least three risk factors was most common. Hypertension and dyslipidemia plus one other risk factor was most frequently encountered. Hypertension, dyslipidemia, and sedentarism were the most common clustering. The prevalence of MetS was 66%. Among hypertensive patients with MetS, the average estimated CHD risk in the next 10 years is 18% and at least half are at high risk for CHD events. Among those without MetS, the average CHD risk is 10% and majority (73%) are at low risk.

Conclusions - Hypertensive individuals can have multiple risk factors and metabolic syndrome. Those with metabolic syndrome are at high risk to have CHD events in the next 10 years, similar to CHD risk equivalents. Emphasis should be given on early identification, intervention, and prevention of coronary heart disease in hypertensive individuals, especially those with metabolic syndrome.

Effect of dairy foods on coronary heart disease: a systematic review of prospective cohort studies

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Background - Dairy foods may increase the risk of coronary heart disease.

Objective - To assess the effect of dairy foods on coronary heart disease using prospective cohort studies.

Design - We searched for prospective cohort studies where intake of dairy foods was measured and these intakes were related to heart disease and death end points. Electronic databases including MEDLINE, EMBASE, CENTRAL, CINAHL, citation index (Web of Science) and the Australian and International dissertation libraries were searched. Eligible studies were assessed for quality and data extracted. Primary outcomes were death, death from coronary heart disease (CHD), ischaemic heart disease (IHD), or episode of myocardial infarct. Two reviewers assessed study quality and extracted data with discrepancies resolved by consensus.

Outcomes - We identified eleven studies for inclusion assessing >215,000 subjects. Most studies had close to or greater than 80% follow-up rate, made adjustment for three or more confounders in the statistical analysis and used standard criteria to determine CHD/IHD end points. About half the studies used validated food frequency questionnaires (FFQ), administered the FFQ more than once, or had a follow-up duration of 20 years or more. Less than half the studies involved subjects with characteristics representative of the general population. Seven of eleven studies reported no association between dairy intake and CHD/IHD. Four of eleven studies suggested some association between some aspect of dairy intake and CHD/IHD.

Conclusions - This assessment of eleven prospective cohort studies indicates that there is no clear evidence in support of the concept that dairy intake is consistently associated with higher CHD/IHD risk.

Interest statement - This was an independent scientific review commissioned by Dairy Australia.