

## CVS-07 Earthworm extract as a fibrinolytic agent in healthy men: a randomised, double-blind, placebo-controlled study

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**Introduction:** "Plasmin" (Everpride Pharmaceutical) is a commercially available health food supplement that contains an earthworm extract. Preliminary studies suggested that it might have fibrinolytic properties. We therefore tested its efficacy and safety in a randomised, double-blind, placebo-controlled trial.

**Method:** 30 normal healthy men participated with informed consent and were randomised to either Plasmin 750 mg three times daily or matching placebo capsules for 28 days. Blood samples were taken at 1, 2, 7, 14 and 28 days for haematological and biochemical tests.

**Results:** There were no significance changes in blood count, renal function, liver function, blood glucose, and lipid profile. There was a small difference ( $1.04s \pm 0.31$ ,  $p=0.002$ ) in the activated partial thromboplastin time (APTT) between Plasmin and placebo. There was no incidence of abnormal bleeding. The number of adverse events (AEs) in the 2 treatment groups (9 AEs in 4 placebo-treated subjects and 7 AEs in 3 Plasmin-treated subjects) was comparable. None of the adverse events were related to trial medication. Plasmin was well tolerated by the subjects.

**Conclusions:** Plasmin is a safe and well-tolerated Chinese medicine. In this short-term study, we have not found any adverse haematological effects. A large clinical trial of long duration is needed to evaluate its efficacy in the prevention of thromboembolic diseases.

## CVS-08 Lipid profile of the Hong Kong Cardiovascular Risk Factor Prevalence Survey cohort

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**Introduction:** In 1995-6, 2881 randomly chosen Hong Kong men and women participated in the Hong Kong Cardiovascular Risk Factor Prevalence Survey. The subjects are recalled for follow up after 6 years. Here, we report the current lipid profile of the subjects who have been restudied.

**Method:** 813 subjects (393 men, 420 women; age  $51 \pm 12$  yrs) were randomly chosen from the cohort and were studied in the morning after overnight fasting. Body fat was assessed using bioelectrical impedance. Height, weight, waist and hip circumferences were measured. Blood pressure was measured carefully after resting. An oral glucose tolerance test was performed. Venous blood was taken for lipid and glucose measurement.

**Results:** Compared to six years ago, there were no significant changes in body weight and body mass index (BMI), but the waist circumference (WC) increased from  $81.5 \pm 1.1$  to  $83.9 \pm 1.1$  cm ( $p < 0.001$ ). Plasma total cholesterol increased from  $5.00 \pm 0.10$  mmol/L to  $5.27 \pm 0.10$  mmol/L ( $p < 0.001$ ). This was due to a rise in both HDL-C ( $1.2 \pm 0.03$  to  $1.3 \pm 0.04$  mmol/L,  $p < 0.001$ ) and LDL-C ( $3.2 \pm 0.09$  to  $3.4 \pm 0.08$ ,  $p = 0.12$ ). Plasma triglycerides were  $1.6 \pm 0.06$  mmol/L in men and  $1.3 \pm 0.05$  mmol/L in women ( $p < 0.001$ ). 126 (16%) and 214 (26%) subjects had diabetes and hypertension respectively. Multiple regression analysis showed that HDL-C was related ( $R = 0.53$ ,  $p < 0.001$ ) to WC ( $\beta = -0.34$ ), sex ( $\beta = 0.24$ ), age ( $\beta = 0.13$ ), alcohol ( $\beta = -0.15$ ), fasting glucose ( $\beta = -0.11$ ) and diastolic pressure ( $\beta = 0.09$ ). LDL-C was related ( $R = 0.21$ ,  $p < 0.001$ ) to age ( $\beta = 0.1$ ), fasting glucose ( $\beta = 0.11$ ) and diastolic pressure ( $\beta = 0.08$ ).

**Conclusions:** Dyslipidaemia is associated with central obesity, high blood glucose and high blood pressure in these subjects that have been randomly selected from the general population. Our data highlight metabolic syndrome as a major problem in Hong Kong.