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Associated risk factors and their relationship with disease severity in a cohort of menopausal women with coronary artery disease: a preliminary descriptive analysis

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Key words

coronary artery disease, postmenopausal women

Objectives

To analyze biochemical, nutritional and other risk factors of coronary artery disease (CAD) in postmenopausal women (n=35, 57.7± 8yrs) awaiting coronary artery bypass surgery at a tertiary care hospital in Sri Lanka.

Method

Biochemical (Lp(a), thyroid profile, uric acid, cortisol), nutritional (albumin, vitamin A, ferritin, vitamin E) and anthropometric parameters were measured, and lipid profile parameters obtained from records. Risk factor data were gathered from an interviewer administered questionnaire and extent of severity determined by Gensini extent score using angiograms.

Results:

Except low HDL (31.4±5.9 mg/dL) other lipid profile parameters were normal. Mean Lp(a) concentration was 50±35 mg/dL with 67% having beyond reference range (<30 mg/dL). All nutritional biomarkers and uric acid level were within normal ranges. The cortisol level was 119±40 ng/ml. All were centrally obese (WC ≥ 90cm) and 83% overweight (BMI > 23 kg/m2). Except one individual all were at higher risk of metabolic disease with waist to hip ratio. Among co-morbidities, hypertension (94.3%) and dyslipidemia (94.3%) were comparatively high with lower diabetes mellitus (54.3%). More than 3/4 of individuals (77.7%) had a family history of ischemic heart disease. Four individuals (11.4%) were sub-clinically hypothyroid and not identified previously. CAD severity by Gensini score was 44.8±27.1 (calculated out of 100) and values significantly correlated with triglyceride (r=0.464, p=0.005) and cortisol (r=427, p=0.021).

Conclusions

In the study group, lipid profile was normal, but hypertension and dyslipidemia were highly prevalent with high body fat distribution. In identifying susceptibility to CAD, family history and Lp(a) are good markers. Cortisol may be a good parameter to predict severity of CAD in postmenopausal women.