Abstract

Background: Rheumatoid arthritis is associated with excessive cardiovascular morbidity and mortality. This is predominantly due to accelerated coronary artery and cerebrovascular atherosclerosis. Traditional cardiovascular risk factors as well as extra articular disease have been associated with occurrence of myocardial infarction.

Objective: To identify cardiovascular risk factors in patients with rheumatoid arthritis at Kenyatta National Hospital and compare with healthy controls.

Design: This was a comparative cross sectional survey.

Setting: Kenyatta National Hospital medical outpatient clinic. The study population were patients with rheumatoid arthritis and the controls were individuals without RA age and sex matched staff of KNH. All those who consented were enrolled and a clinical evaluation was done as per the study protocol.

Results: One hundred patients with RA were screened out of which 80 were enrolled. The prevalence of hypertension among RA patients was 41.3%, diabetes 6.3%, dyslipidemia 71.3%, smoking 5%, obesity 22.5%, abnormal WHR 33.8%, family history of sudden death 5%, no family history of stroke or heart attack was reported. In the control group one hundred and five were screened and twenty five were excluded. The prevalence of hypertension was 22.5%, diabetes 5%, dyslipidemia 73.8%, smoking 2.5%, obesity 32.5%, abnormal WHR 33.8% family history of sudden death 10%, stroke 1.3% no history of heart attack was reported. Eighty percent of patients with RA were on at least one DMARD, 57.5% were on steroids and 37.5% were on NSAIDS.

Conclusion: There was a high prevalence of hypertension among RA patients (41.3%) than in the controls (22.5%) and this was statistically significant (OR 2.42 (95 CI 1.22-4.81) P = 0.017). Hypertension was also significantly associated with the use of DMARDS OR 2.189 (95% CI 1.111-4.312) P= 0.022 and steroids OR 2.06(95% CI 1.008-4.207) P= 0.022. No significant difference between patients with RA and controls in other risk factors including diabetes, dyslipidemia, smoking, obesity, abnormal waist hip ratio and family history of cardiovascular events was found.

Recommendations: Clinicians should keenly look out for hypertension in patients with RA for early identification and if necessary aggressive management of hypertension. Screening of cardiovascular risk factors in patients with RA should be done routinely and a larger study with normal controls from the general population should be undertaken in order to measure this cardiovascular risk factors and cardiovascular disease in this population.