

ABSTRACT

Aim of study:

To assess the effects of various CV risk factors on the carotids intima-media thickness (IMT), Study the effect of serum uric acid levels on carotids IMT and evaluate the predictive value of carotid IMT for presence of IHD.

Background:

Atherosclerosis is a common and global disease. Whether uric acid is an independent risk factor for cardiovascular diseases is still disputed. High-resolution ultrasound is a reliable, non-invasive method to detect early structural and functional atherosclerotic changes in the arterial wall.

Patients and methods:

Thirty two patients are enrolled in this study, 21 male and 11 female, aged **30-80**(59 ± 10.3) years. The patients were randomly selected from outpatient clinic in Al-Sader teaching hospital in Al-Najaf. Data about various cardiovascular risk factors (age, sex, BMI, DM, hypertension, smoking) were reported; and all patient were investigated for RBS, lipid profiles and uric acid levels. The subjects underwent B-mode ultrasonography of the extra-cranial carotid arteries.

Results:

Serum uric acid levels have been associated with significant effect on common and internal carotid IMT, as did other CV risk factors (age, sex, DM, hypertension and smoking), except for the body mass index. Univariate analysis of uric acid and multiple confounders revealed independent effect of serum uric acid on IMT of both common and internal carotid artery. IMT \geq one mm in common and internal carotid arteries associated with significant increase in prevalence of IHD.

Conclusions:

Serum uric acid levels are independent risk factor for atherosclerosis. Intima media thickness assessment may have important predictive value for presence of IHD.