113 IN PEOPLE LIVING WITH HIV, ABDOMINAL CIRCUMFERENCE IS BETTER CORRELATED TO Q-RISK THAN BODY MASS INDEX

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Introduction Antiretroviral therapy (ART) has dramatically reduced morbidity and mortality among people living with HIV (PLWH), including wasting syndrome. Metabolic and cardiovascular (CV) diseases are leading causes of death for PLWH in high-income countries.

Obesity is increasing in the HIV population but a lack of data exists in PLWH, and the association with cardiovascular risk. The aim to determine if central obesity (measured using waist to hip ratio) is a better predictor of CV risk than Body Mass Index (BMI) which is the current standard to define obesity in PLWH.

Methods Single centre, prospective study performed in a large metropolitan HIV unit. 129 PLWH had weight, height, waist and hip circumference, and blood pressure (BP) recorded. Data on sex, age, ethnicity, past medical history including CV risk factors and kidney disease, smoking status and postcode was used to calculate waist to hip ratio (W/H), BMI and Q-Risk2.

Results The study population included 30(23%) women and 98(77%) men; 76(59%) Caucasian, 38(30%) black African/Caribbean and 14 (11%) another ethnicity. In total, 43(34%) were overweight and 31(24%) obese using BMI measurement, this changed to 25(20%) and 39(30%) when using WHR.

Q-Risk2 demonstrated that 82 PLWH (64%) had mild risk, 25 (20%) moderate, and 21(16%) were high cardiovascular risk (excluding HIV as a risk factor).

There was significant correlation between WHR and Q-Risk2 ($r=0.44$, $p<0.01$, graph B) but not between BMI and Q-Risk2 ($r = 0.13$, $p = 0.15$, graph A). ROC analysis demonstrates that WHR is able to predict Q-Risk2 (AUC 0.74, 95% CI 0.66–0.82, $p<0.01$) with a cut-off of 0.98 having 67% sensitivity and 81% for predicting Q-Risk2 >20 (high risk). WHR performed significantly better than BMI (AUC 0.58, 95% CI 0.49–0.67, $p=0.24$) at predicting Q-Risk2 ($p=0.02$ for difference, graph C).

Conclusion Temporal change in waist circumference can indicate change in abdominal fat, with increased abdominal fat being associated with increased CV risk. WHR is superior to BMI at predicting high risk (Q-Risk >20%). It should be included as part of routine clinical assessment and lifestyle intervention implemented to reduce CV risk in PLWH.

Conflict of Interest None

114 PERIPHERAL BLOOD MONONUCLEAR CELL EXPRESSION OF THE STABILIZING RNA-BINDING PROTEIN HUR IS ASSOCIATED WITH INCIDENCE AND EXTENT OF HUMAN ATHEROSCLEROTIC CARDIOVASCULAR DISEASE

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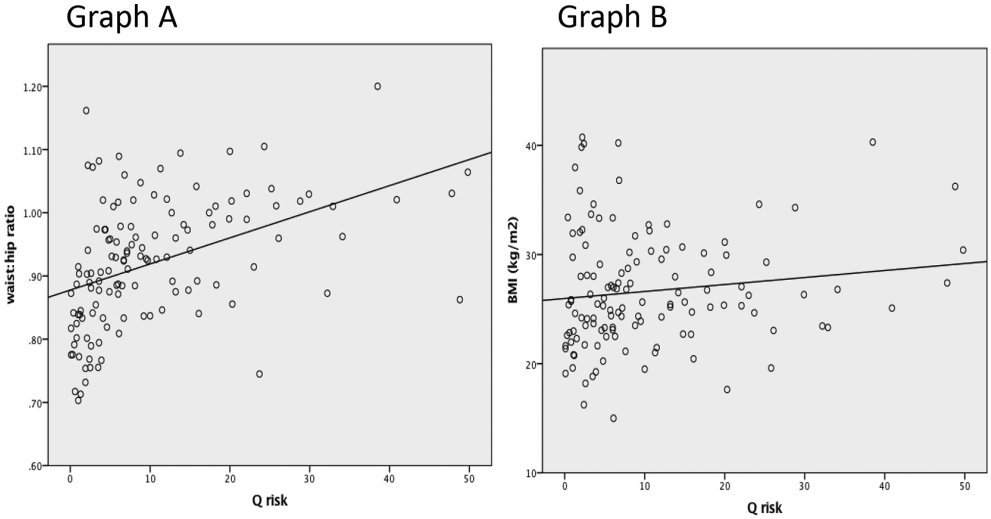
Introduction Human Antigen R (HuR) is a stabilizing RNA-binding protein that regulates the expression of several pro-inflammatory molecules. However, its regulation in human atherosclerotic cardiovascular disease remains unknown. Herein, we sought to determine the association of peripheral blood mononuclear cell HuR expression with established markers of increased cardiovascular risk and atherosclerosis burden in patients with subclinical or clinically overt coronary artery disease (CAD).

Methods HuR mRNA expression was measured in peripheral blood mononuclear cells derived from 289 patients with stable CAD or acute myocardial infarction (AMI) and 373 individuals without clinically overt cardiovascular disease (CVD). Structural and functional vascular measurements including intima-media thickness (IMT) and number of atheromatous plaques by carotid and femoral artery ultrasonophaphy, markers of arterial wave reflections by pulse wave analysis and pulse wave velocity were used as surrogate markers of subclinical CVD. The number of angiographically confirmed



Abstract 113 Figure 1 Graph A: Significant Pearson's correlation between W/H Ratio and Q-Risk2. Graph B: Non-significant Pearson's correlation between BMI and Q-Risk2.

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