

https://dspace.org/

Cardiovascular risk profile of kidney transplant recipients at the Charlotte Maxeke Johannesburg Academic Hospital.

Muhammad, Aminu Sakajiki

2014-04-25
http://hdl.handle.net10539/14587

Downloaded from a DSpace repository. https://dspace.org/

ABSTRACT

INTRODUCTION

Cardiovascular diseases (CVD) are more common in kidney transplant recipients (KTRs) than in the general population. The high incidence of CVD in the KTRs can be attributed to traditional risk factors, additional risk factors associated with graft dysfunction and those specifically related to transplantation.

Carotid intima-media thickness (cIMT) is a proven surrogate of atherosclerosis; it correlates with vessel pathology and is precisely imaged using ultrasound technology.

This study was aimed at determining the prevalence and predictors of cardiovascular risk among KTRs at the Charlotte Maxeke Johannesburg Academic Hospital (CMJAH) and to examine the relationship between cardiovascular risk factors and carotid intima media thickness.

METHODS

Patients aged 18 years and above who received a kidney transplant at the CMJAH between January 2005 and December 2009 were recruited. A questionnaire that captured cardiovascular risk factors was administered. Patients records were assessed for information on their post transplant follow up. All patients had echocardiography and carotid doppler done for measurement of intima-media thickness. The Framingham Risk Score was used to categorize patients into low, moderate, high risk and very high risk groups. Results were analyzed using statistical package for social sciences (SPSS) version 17, p value of 0.05 was considered significant.

RESULTS

One hundred (KTRs) 63 male (63%) and 37 female (37%) were recruited ranging in age from 19 to 70 years, with a mean age of 42.2 ± 12.42. Thirty six patients (36%) were found to have high cardiovascular risk. Multiple regression showed proteinuria ($p = 0.022$), higher cumulative

steroid dosage (p = 0.028), elevated serum triglycerides (p = 0.04) and the presence of plaques in the carotid artery (p = 0.012) as predictors of higher cardiovascular risk.

Carotid intima-media thickness correlates with higher CVD risk. Fourteen patients (14%) had a carotid artery plaque. Twenty five patients (25%) had cIMT of >0.7 mm.

CONCLUSION

Kidney transplant recipients in CMJAH were found to have high cardiovascular risk (36%) and carotid intima-media thickness correlates with this high CVD risk. Routine follow up of KTRs should include measurement of cIMT as it provides a simple non-invasive assessment of subclinical atherosclerosis.