

Session/Poster#

Presenter

A16

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Whole Body Phase Angle, Body Composition and Relationship to Frailty in Kidney Transplant Recipients (KTRs)

Introduction:Frailty has been associated with poorer outcomes in KTRs, but patients can be frail with elevated BMI and few studies have examined bioimpedance whole body phase angle values as a measure of overall health in this population. Methods:A random convenience sample of 26 KTRs were administered a handgrip dynamometer test and frailty survey. Body composition was measured using the InBody S10 body composition analyzer with the patient in a seated position. Results:Mean age was 60-2.3yrs, there were 17 males (65%), 17 (65%) identified as Black. Mean post-transplant time was 34.1-10.4 mos.Mean BMI was 26.7-4.2, mean body fat was 21.7-2.6, visceral fat 17.4-4.9, skeletal muscle mass 68-4.3, whole body phase angle 5.8-0.47. 11(44%) met the definition of frailty by handgrip (<70 for males, <44females) which correlated with ability to walk one block ($r=0.458$, $p=0.021$) but did not correlate with any measure of body composition. Whole body phase angle correlated with time since transplant ($r=0.43$, $p=0.033$) and absolute grip strength ($r=0.49$, $p=0.004$).There was no relationship between age, sex, or time since transplant and any body composition measurement. 10 (11%) pts reported feeling weaker since their transplant and 41% (12) pts reported being too tired to exercise but there was no objective difference in hand grip, phase angle or body composition between these groups and those who did not feel weak. Conclusion:In our population of older inner-City KTRs 1 Majority pts are overweight by BMI and elevated fat mass. 2 Over one third pts met definition for frailty by hand grip and were less able to walk one block. 3 Phase angle, understood as a measurement of overall health in other populations, correlated with hand grip and appeared to improve with increasing time since transplant in all but 2 pts. 4 Phase angle values may help assess overall improvement following transplantation, as pts perception of strength does not correlate well with physical findings.