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Visceral Adiposity and Relationship to Food Insecurity in Stable Long-Term Inner City Kidney Transplant Recipients (KTRs)

Introduction: Higher percent body fat is associated with increased risk for multiple diseases especially if it has a visceral distribution. We studied body fat patterns in a population of inner-city KTRs at risk for food scarcity.
Methods: A random sample of 16 stable long-term pts from kidney transplant clinic were studied using the InBody S10 body composition analyzer at a regularly scheduled appointment. Pts were seated and electrodes were attached to the middle fingers, thumbs and below each ankle. Food scarcity was assessed by standardized survey.
Results: 63% (10) pts had body fat >25% (HIFAT). They did not differ from pts with body fat <25% (6 pts, LOFAT) in time since transplant (mean 10.6±4.0 yrs), race, education or annual income.The majority (56.3%) had an annual income <$20k. HIFAT pts had higher visceral fat (14.0±1.3 vs 5.1±1.3, p<0.001), higher BMI (34.8±1.25 vs 27.7±1.7, p=0.002), and body weight (227.1±12.6 vs 180.5±12.1, p=0.010), but no difference in skeletal muscle mass. HIFAT pts were more likely to be male (70% vs 30%, p=.039) and were older (53.9±2.7 vs 43.5±2.5 yrs, p=0.01). Pts with diabetes were more likely to be HIFAT than those without (100% vs 50%, p=.037). 50% of pts in the LOFAT group reported they had cut down or skipped meals because there wasn't enough money for food vs none of the HIFAT pts(p=.018). 100% of pts who received food from a bank, church or pantry in the last year were LOFAT (p=.004).
Conclusion: Most pts had high total body fat and met the definition of obesity by BMI. 2. Pts with higher body fat weighed more overall and had more visceral fat but not higher skeletal muscle mass 3. Those with higher body fat were more likely to be older and male. 3. Lower body fat may be related to food scarcity and reliance on food pantries and not better dietary habits. 4. Education regarding lifestyle changes is important in this population as visceral adiposity may contribute to cardiovascular disease and diabetes.