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HIV-Associated Nephropathy Presenting as the First Manifestation of HIV-2 Infection

Kamil Sardarli

Rania Daboul

Sumesh Khanal

Sami Zarouk

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Among those <65 years, nearly half of all IVD related cases were Black American men and women. The detected racial disparities in the IVD process in the nation warrant additional investigations including root cause analyses, and if verified, interventions to resolve these disparities should be tested.

Table 1. Race distribution of 24,718 dialysis patients with intended or implemented involuntary discharges during 1/2017-12/2020

	African American	White	Other Races
Total	n=10,787	n=12,564	n=1,671
Age group			
MALE	n= 6,474	n= 8,233	n= 862
<45	1,598 (46)	1,681 (49)	172 (5)
45-65	3,816 (44)	4,385 (51)	458 (5)
≥65	1,060 (31)	2,167 (62)	232 (7)
FEMALE	n= 4,313	n= 4,331	n= 807
<45	1,155 (49)	1,096 (46)	117 (5)
45-65	2,274 (48)	1,995 (42)	458 (10)
≥65	884 (38)	1,240 (53)	232 (9)

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FACTORS AFFECTING DECISION TO RECEIVE THE COVID-19 VACCINE IN INNER-CITY DIALYSIS PATIENTS:

Edward Bae¹, Lulu Wei¹, Ariel Gidon¹, Sasha Martinez-Machado¹, Brett Sherman¹, Caroline Canning¹, Mariana Markell¹. ¹SUNY Downstate Health Sciences University

Understanding factors that impact vaccine hesitancy in underserved populations is of paramount importance.

A random sample of 31 dialysis pts were surveyed regarding COVID-19 vaccination status, attitudes towards vaccines and perception of healthcare/government authority. Respondents who received both doses, one dose, or were planning on doing so were recorded as VACYES while those who were unsure or refused were recorded as VACNO.

Mean age was 56.1 ± 17.9 yrs, time on dialysis 6.2 ± 7.2 yrs with 18 (58%) women, 13 (42%) men, 28 (90%) identified as black. 84% had received the vaccine. There were no statistically significant differences between VACYES and VACNO for age, time on dialysis, sex, race, education, insurance status, and presence of diabetes. VACYES were more likely to agree with trust in the information about the vaccine ($r = 0.57, p < 0.001$), felt confident about the safety and efficacy ($r = 0.75, p < 0.001$), and trusted government guidelines regarding COVID-19 ($r = 0.73, p < 0.001$). Pts who believed it was okay for the government to mandate vaccinations ($r = 0.52, p = 0.003$), mandate COVID-19 vaccinations ($r = 0.58, p = 0.001$), and believe we should all follow government guidelines to protect public health ($r = 0.41, p = 0.02$) were also more likely to be VACYES. They also believed that hospitals could care for them if sick with COVID-19 ($r = 0.62, p < 0.001$), felt they had an active partnership with their provider ($r = 0.42, p = 0.02$) and felt having regular contact with their physician was the best way to avoid illness ($r = 0.38, p = 0.04$).

VACNO pts were more likely to say they had less contact with medical professionals regarding their dialysis restrictions ($r = -0.63, p < 0.001$) and felt their provider did not listen to them ($r = -0.38, p = 0.04$).

In our population of inner-city dialysis patients: 1. The majority are vaccinated against COVID-19. 2. Pts were more likely to have received the vaccine if they had trust in the government regarding COVID-19 and in the healthcare system in general. 3. Pts who reported more shared decision making were more likely to receive the vaccine and this should be emphasized in education efforts for vaccine acceptance in our vulnerable population.

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VISCERAL ADIPOSITY AND RELATIONSHIP TO FOOD INSECURITY IN STABLE LONG-TERM INNER CITY KIDNEY TRANSPLANT RECIPIENTS (KTRs):

Sasha Martinez-Machado¹, Caroline Canning¹, Lulu Wei¹, Brett Sherman¹, Lekha Patel¹, Alissa Belzie¹, Mariana Markell¹. ¹SUNY Downstate Health Sciences University

Higher percent body fat has been 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.

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 a standardized survey.

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. 12 (75%) pts identified black, 2 (12.5%) white and 2 (12.5%) other. 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 ($p = .018$). Additionally, 100% of pts who received food from a bank, church or pantry in the last year were LOFAT ($p = .004$). There was no difference in SNAP use between the two groups.

In our population of long-term inner-city KTRs: 1. The majority of patients had high total body fat and met the definition of overweight or 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. 4. Lower body fat may be related to food scarcity and reliance on food pantries and not better dietary habits per se. 5. Education regarding lifestyle changes that might improve body composition is important in this population as visceral adiposity may contribute to cardiovascular disease and diabetes.

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HIV-ASSOCIATED NEPHROPATHY PRESENTING AS THE FIRST MANIFESTATION OF HIV 2 INFECTION:

Kamil Sardarli¹, Rania Daboul¹, Sumesh Khanal², Sami Zarouk¹. ¹Oakland University William Beaumont School of Medicine; ²Rochester General Hospital

HIV-2 is distinguished from HIV-1 with low virulence, longer asymptomatic period, slower decline in CD4 count, low viral load, and low mortality from AIDS. While the kidney pathology associated with HIV-1 is well established, due to its low prevalence, kidney pathology in HIV-2 is not well documented. We report a case of HIV associated nephropathy (HIVAN) as the first presentation in a patient with HIV-2.

A 65 year old man from Ghana presented within a few days of arrival to the United States with nausea, loss of appetite, shortness of breath, and bilateral lower extremity edema. He has a past medical history of hypertension and renal failure diagnosed four months prior to presentation. On admission, patient had a blood pressure of 187/100 mmHg, Hgb of 9.1 g/dl, blood urea nitrogen of 70 mg/dl, and creatinine of 10.93 mg/dl. He also had 675 mg protein in 24-hour urine collection. His echo showed left ventricular ejection fraction of 45%. Antinuclear antibody, antineutrophil cytoplasmic antibody, and anti-glomerular basement membrane antibody were negative. Complement levels (C3, C4) were normal, and serum monoclonal gammopathy evaluation was negative for monoclonal proteins.

Patient was found to have a reactive HIV-2 antibody test and the HIV-2 viral load was 8 copies (<0.90 log₁₀) per mL. Hemodialysis was initiated through a tunneled catheter. Biopsy was later done revealed 17 glomeruli of which 7 were globally sclerosed and one showed segmental sclerosis without evidence of crescent formation or necrosis, proximal and distal tubular dilation with diminished brush borders. Findings were consistent with collapsing variant of focal segmental glomerulosclerosis and interstitial fibrosis and tubular atrophy accompanied with interstitial nephritis suggestive of HIVAN.

There are only three other cases reported in the literature of HIVAN as the primary presentation of HIV-2. All of which are patients of African origin. We aim to highlight the importance of testing HIV-2 and obtaining kidney biopsies in patients presenting with kidney failure from endemic regions. There is a lack of guidelines available for the initiation of antiretroviral therapy in patients with HIV-2 and renal involvement.