SPECTRUM OF RENAL DISEASE IN A COHORT OF HIV INFECTED ANTIRETROVIRAL NAIVE PATIENTS

Authors: INDRAJEET K. TIWARY ¹, ABHIJIT TARAPHDER ¹, NETAI PRAMANIK ².

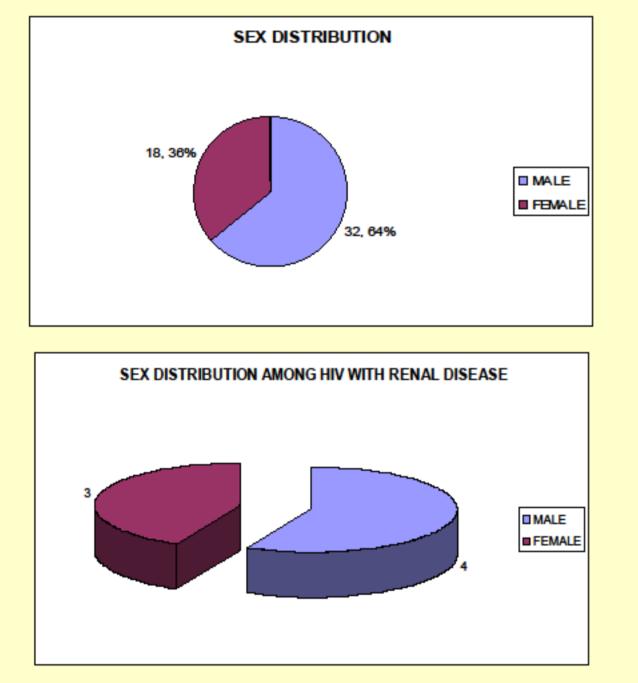
Hospital: 1 APOLLO GLENEAGLES HOSPITAL, NEPHROLOGY, KOLKATA, INDIA, 2 SCHOOL OF TROPICAL MEDICINE, TROPICAL MEDICINE, KOLKATA, INDIA

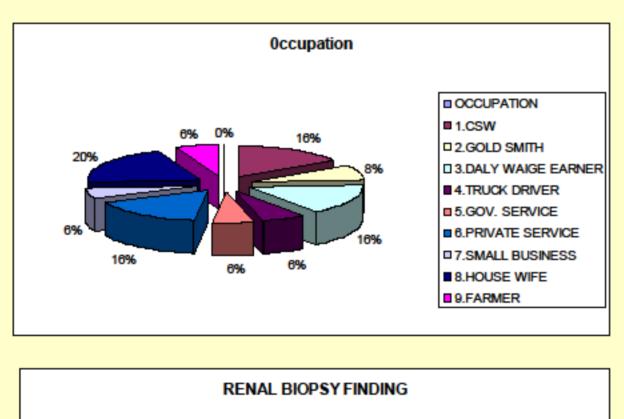
Objectives:

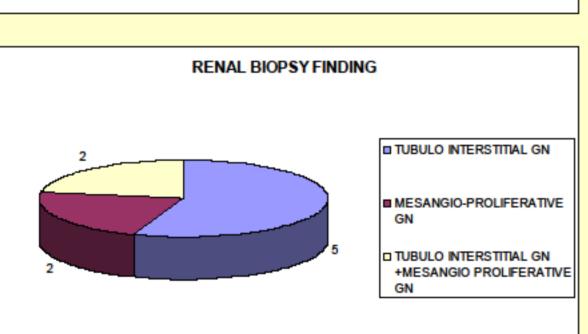
Affection of kidneys in HIV infected patients may be due to the consequences of HIV infection itself, infection caused by opportunistic organisims or drug toxicity, specially antiretroviral therapy. HIV associated nephropathy(HIVAN), characterized by focal segmental glomerulosclerosis (FSGS), tubulopathy and interstitial inflammation is the most common histopathological entity in the black population. The present study attempted to see the morphological patterns in Indian population.

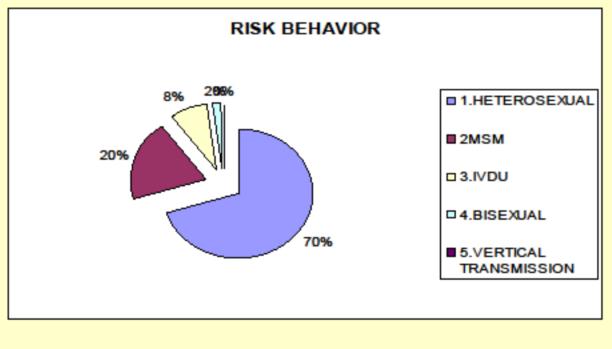
Methods:

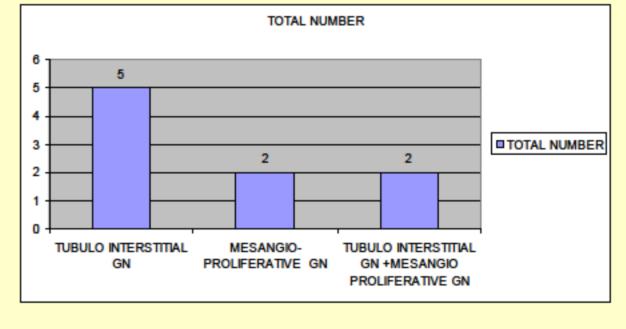
An institution based cross sectional study was carried out in 50 consecutive HIV infected antiretroviral naive patients aged 14 years and above. Those having preexsisting diabetes, hypertension or renal disease were excluded. Glomerular filtration rate(GFR)was estimated by Cockroft & Gault formula and urinary protein was estimated by pyrogallol red. Renal biopsy was performed in those having a GFR between 15ml/min and 60ml/min and having a 24 hours urinary protein excretion of more than 300 mg. Prior to renal biopsy, coagulation parameters were checked and informed consent was taken in each patient. The study was approved by the institutional ethics committee.

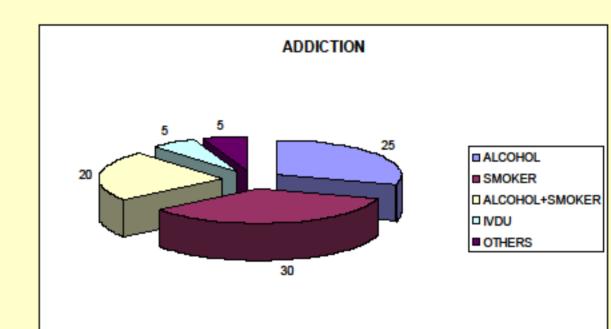


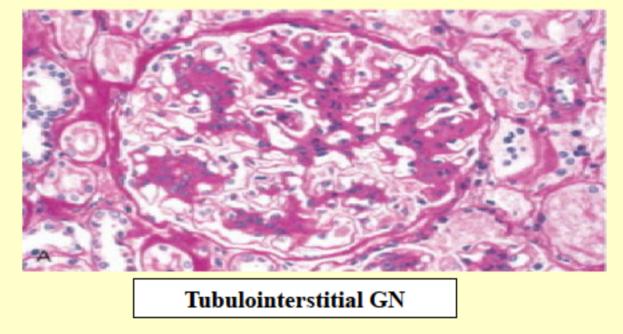


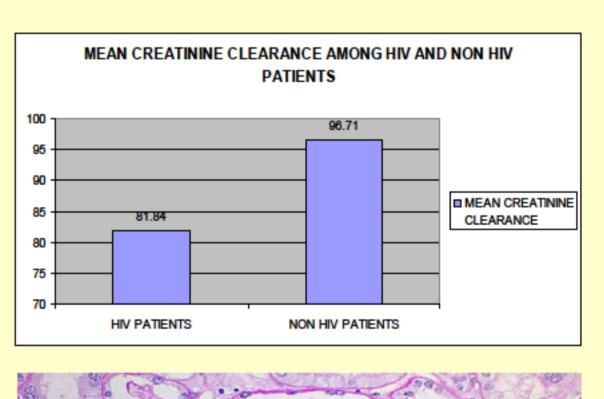


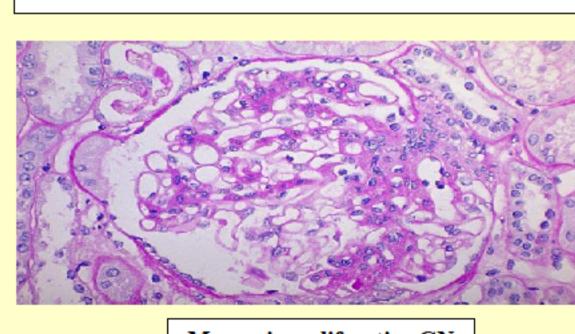












Mesengioproliferative GN

Results:

In the 50 patients under study, 7 satisfied the laid down criteria and were subjected to renal biopsy. Mean proteinuria was 1.84 0.7 gm/day. Five of them showed features of acute interstitial nephritis, whereas two had mesangioproliferative glomerulonephritis. No histopathological evidence of classic HIVAN could be demonstrated in any patient. The mean CD4 count in those not having renal disease was 227 109, while the same in those having renal disease was 141 111. The difference was statistically significant (P<0.05)

Conclusions:

In a cohort of 50 HIV infected antiretroviral naive patients aged 14 years and above, with a GFR between 15ml/min and 60ml/min, and proteinuria of more than 300mg/day,14% had histological evidence of renal disease, the commonest being acute interstitial nephritis, followed by mesangioproloferative glomerulonephritis. A low CD4 count had a direct association with the renal disease.

References:

1.Renal lesions in AIDS: a biopsy and autopsy study. Madiwale C, Venkataseshan VS. . Indian J Pathol Microbiol. 1999Jan;42(1):45-54.

- 2. Correlation of CD4 Counts with Renal Disease in HIV Positive Patients.Hari Janakiraman¹, Georgi Abraham¹, Milly Matthew¹, Sarah Kuruvilla², Vinod Panikar², Sunithi Solomon³, Kumaraswamy³, Surya V Seshan⁴, Nancy Lesley. Year: 2008 | Volume : 19 | **Issue** : 4 | **Page** : 603-607.
- 3. HIV-associated nephropathy: outcome and prognosis factors. Groupe d' Etudes Nephrologiques d'Ile de France A Laradi, A Mallet, H Beaufils, M Allouache and F Martinez. Journal of the American Society of
- 4. HIV-associated renal disorders: recent insights into pathogenesis and treatment. Berggren R, Batuman V. Curr HIV/AIDS Rep. 2005 Aug;2(3):109-15.

Nephrology, Vol 9, 2327-2335.

5. Prevalence of chronic kidney disease in Chinese HIV-infected patients. Cheung CY, Wong KM, Lee MP, Liu YL, Kwok H, Chung R, Chau KF, Li CK, Li CS. Nephrol Dial Transplant. 2007 Nov;22(11):3186-90.







