Evaluation of HIV status and its spread in HIV patients on RRT and their spouses

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Introduction

• Human immunodeficiency virus (HIV) infection has become a global pandemic.

• According to recent UN report,
  – India has the third largest number of people living with HIV in the world — 2.1 million at the end of 2013 — and accounts for about 4 out of 10 people living with HIV in the Asia—Pacific region

http://www.thehindu.com/sci-tech/health/india-has-3rdhighest-number-of-hivinfected-people-un/article6220483.ece?css=print Published July 17, 2014
Introduction

No. of HIV-infected people in 2013

- India: 2,100,000.00
- Indonesia: 640,000.00
- Brazil: 730,000.00
- South Africa: 6,300,000.00
- Myanmar: 190,000.00
- Zimbabwe: 1,400,000.00

Source: UNAIDS, Get the data

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Introduction

• The size of the HIV-infected population and the longevity of HIV-affected patients is increasing due to the Combined anti-retroviral therapy (cART)

• Multiple diseases affecting various organ systems in the normal population are becoming manifest in these HIV patients.
  – One such spectrum of diseases is renal involvement in HIV patients

Introduction

• Renal disease of any stage is a common complication in HIV-infected patients, affecting up to 30% of patients, and is associated with increased morbidity and mortality.

• Once established, end-stage renal disease (ESRD) and chronic renal replacement therapy (RRT) substantially increase the risk of death and cardiovascular events in the general and HIV-infected populations.

Aim

• As it is evident that awareness and prevention are major tools to combat the spread of HIV infection globally.

• Evaluation of HIV status and its spread in HIV patients on RRT and their spouses
Materials and methods

• HIV positive patients on renal replacement therapy (maintenance hemodialysis or kidney transplantation) and their spouses were interrogated via a questionnaire.
Results

- Total No. of patients in study = 24
- Male – 21 (85.5%)
- Female – 3 (14.5%)

Most of the patients were Male – probably males are getting more attention in society in comparison to females.
Results

24 patients (n = 24)

Maintenance HD patient (n=14)
- Male (n=12)
- Female (n=2)

Renal Transplant Patients (n=10)
- Male (n=9)
- Female (n=1)
Results

• Probable mode of spread in patients

Multiple sexual contact is probably most important mode of spread (83.3%)
Results

- Total No. of spouse = 20
  - 20 Patients out of 24 = had spouses
    » 4 Patient did not have spouses
  - HIV positivity in Spouses
    - HIV positive = 8 (/20) (40%) all patients were sexually active
    - HIV negative = 12 (/20) (60%)

40% spouses were found positive for HIV.
Results

• Total No. of spouses  n = 20
• Sexually active = 18
• Sexually inactive = 02
Results

Sexually active spouse (n=18)

- HIV positive: 44.4% (n=8)
- HIV negative: 55.6% (n=10)

Sexually inactive n = 2

*100% spouses who were found HIV positive, belong to sexually active status meaning by that sexual spread is the most important.
Results

HIV positivity in relation with contraceptives

* **Barrier contraceptive is effective** but not a full proof protection from HIV infection because 2 spouses were infected in spite of barrier contraceptive
Results

• Chronic Alcoholism in HIV positive patients

- Total No. of patient n = 24 (100%)
- Chronic Alcoholism n = 15 (62.5%)
- Not using Alcohol n = 9 (37.5%)

*Chronic Alcoholism is prevalent amongst HIV infected patients.
Results

- **Ways of prevention:**
  - **Total No. of persons** 44 Patient (24) + Spouse (20) n = 44

*90% subjects were of opinion that out of four methods to prevent spread of HIV infection, social workers counseling is more important*
Discussion

• Indian data suggests more men are HIV positive than women
  – Nationally, the prevalence rate for adult females is 0.29 percent, while for males it is 0.43 percent
    • means that for every 100 people living with HIV and AIDS (PLHAs), 61 are men and 39 women*

  – However, in our study 85.5% were male which is higher

  – This may be due to males getting more attention
  – Or we need to study factors which may lead to higher kidney damage in males with HIV

*http://www.naco.gov.in/NACO/Quick_Links/HIV_Data/
Discussion

• Barrier contraception failure
  – Male condoms are an extremely effective means of HIV, STD and pregnancy prevention
  – What most often limits condoms’ effectiveness is user failure rather than product failure
    • For example, users may fail to either put on a condom before genital contact or completely unroll the condom
      – In addition, some people fail to use a condom with every act of sexual intercourse
      – Some don’t use condoms because they reduce sexual sensation
      – For others, using condoms is seen as a barrier to intimacy.
  – Above may be reason of our observation - 2 spouses were infected in spite of barrier contraceptive

http://caps.ucsf.edu/archives/factsheets/barrier-methods#sthash.PPK3ApbU.dpuf
Conclusions

• Multiple sexual contacts, chronic alcohol abuse, intravenous drug abuse and spouses of patients are at high risk of contracting HIV infection.

• **Social workers** have tremendous impact in increasing awareness of HIV and restricting its spread along with Media, Educational curriculum and physician’s counselling.
Thank You!