

Treatment Issues for HIV Positive Women

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Issues

- Women comprise >50% PLWHA
- Natural cohorts - predominantly male cohorts
- Women inadequately represented in randomised clinical trials(lack power to analyse by sex)
- Current studies MTCT>> non-pregnant women
- Women are not men - different psycho-social, physiologic issues
- African?/ women issues

HIV disease progression and gender

- Natural history cohorts : male>female, shorter survival & increased risk of death in females (non-biological factors-differential access)
- Biology - ? *Effect on progression, poorly understood*
 - Oestrogens/progestins
 - Menstruation
 - Pregnancy
 - Body mass Index (BMI)

HIV disease progression and gender (II)

- CD4 counts

baseline counts higher (Prins 1999)

AIDS at higher CD4 (Maini 1996)

- Viral load

lower at baseline(5 years);1.6 higher risk of progression for VL(Katzenstein 1996,Farzadegan 1999)

Viral diversity - HIV1&2, clades ?

?Criteria for starting HAART

CD4/VL and progression

- Swiss HIV Cohort
 - no difference in natural progression
- Anastos (2002)- progression from initiation of HAART
CD4 200 > 200-350 => 350
- Overall – *no difference in progression, ? current guidelines appropriate*

Clinical presentations

- Women younger at presentation
- Candida oesophagitis/PCP commonest ADIs (Sha 1995)
- Cervical abnormalities/ Ca. Cervix
- Recurrent candidiasis

Response to therapy

- Females achieve similar(faster) virological responses (Moore2001, Moorcroft 2000)

Adherence

- Sociological factors – childcare, access, poverty. (Asylum/dispersal)
- Psychological – depression, impact of adverse effects (e.g lipodystrophy)

Easier, tolerable regimens

Toxicity(I)

- Overall higher rates of adverse drug reactions in women (25 vs 37%) (Lucas 1999)
- Cutaneous drug reactions
 - *“Female sex but not ethnicity is a strong predictor of NNRTI induced rash” (n=337, females 30.6%, 47.5% black African). Females rash 14.6% risk RR 9.0; race no effect* (Mazhude 2002)
 - *RTV/Indinavir – 5% in low CD4 counts* (Floridia 2004)
- Lactic acidosis/hepatomegaly on nucleosides
- Hepatotoxicity - nevirapine
- Bone mineral density?

Toxicity (II)

- Morphologic Alterations(MA) (Galli 2001)
differing patterns (increased accumulation)
Female gender assoc. with increased risk of MA (O.R 2.02, p =.001)
-?Psychological impact/adherence
- Lipid abnormalities
greater elevations in women
??CVS risk
- Less diarrhoea/TG rises with NFV (Pernerstorfer-Schoen 2001)

Contraception

- NNRTIs
 - decrease levels of oestrogen OC
 - EFV teratogenicity? (*women can get pregnant!*)
- PIs
 - >40% decrease AUC ethinyl estradiol
- Options
 - IUD?
 - Depo Provera/Norplant

Pregnancy

- Women need information pregnancy/sexual health (SHIBAH project)
- Reproductive choices
- Maternal health takes priority
- Resistance assays
- Which ARVs?

The way ahead....

- Clinical trials and women
 - pharmacokinetics, physiology
 - sex-specific analyses
 - HIV viral diversity
- Qualitative studies - access, adherence
 - health beliefs, religion
- Increased female involvement in study design and regulatory approval

Summary

- HIV/AIDS = same disease in men and women

But

Different psychosocial and physiologic factors