Women aging with HIV

Kristine Patterson, MD
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Why is this important?
### Estimated Percentage of New HIV Infections by Race/Ethnicity, Sex and Age—United States, 2006

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Black/African American</th>
<th>Hispanic/Latino</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-29</td>
<td>6,760</td>
<td>42</td>
<td>3,010</td>
</tr>
<tr>
<td>30-39</td>
<td>4,170</td>
<td>26</td>
<td>2,520</td>
</tr>
<tr>
<td>40-49</td>
<td>3,680</td>
<td>23</td>
<td>1,410</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>1,510</td>
<td>9</td>
<td>480</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-29</td>
<td>2,810</td>
<td>32</td>
<td>820</td>
</tr>
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<td>30-39</td>
<td></td>
<td></td>
<td>820</td>
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</tbody>
</table>

Note: Data have been adjusted for reporting delay. Data presented on blacks/African Americans, Hispanics/Latinos and whites only. The small number of new infections in Asians/Pacific Islanders and American Indians/Alaska Natives precludes further stratification.
What do we know?
No differences in virologic outcome by age

1. Observational Clinical Cohort:
   - No difference in achieving >25% increase in CD4 count by age/sex
   - HIV RNA <400 copies/mL after 6 mos ART.

2. Clinical Trial Cohort:
   - Changes in CD4 count at 24, 48 and 96 weeks similar between pre- and post-menopausal women.
   - Baseline median HIV RNA in post-M women higher, but no difference in virologic suppression.

FDA-ACTG Meta-analysis in Progress

But small # of postM women.
Menopause status determined by age not LMP
HIV RNA cut off <400cpm
Only followed 6 months

Larger # of postM women but not enough for co-variates
Had more specific menstrual history
Retrospective analysis and no control for immunology differences
Best study to date on treatment outcomes—but only the beginning!

Kristine Patterson, MD
IAS-ILF Affiliated event at CROI 2012 - March 5, 2012
Unknown

Clinical Issues

- Tolerability
- Discontinuation Rates
- Adverse Events
- Complications
- Drug-drug Interactions

Scientific

- Inflammation
- Immune Senescence

ART has been understudied!

Inflammation and immune senescence has not been studied!
Accelerated Osteoporosis

Without ART

With Tenofovir

First line ART may not be the best for ALL especially postmenopausal women!
Blood plasma trough concentrations nearly 2-fold higher in postmenopausal women.

Implications:
--- Accelerated osteoporosis
--- Renal Toxicity???
ART has been understudied!

Inflammation and immune senescence has not been studied!

What are the differences in ART Pharmacokinetics? What are the implications of these differences?
Cardiovascular Disease is still the #1 killer of women in the United States!

Is CDV disease different?
- ↑IAF, t-PA, SAA

Additional considerations in treatment and prevention?

Is there a role for ERT in early menopause?
Why is this important?
Acknowledgements

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*All of YOU who continue to work towards a world without HIV/AIDS.*