Fertility Therapy for Women & their Partners Affected by HIV

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Objectives

• To recognize historical barriers to care for women and their partners affected by HIV
• To understand evidence based data addressing the balance of risk and benefit
• To identify opportunities to improve future care for affected patients
Disclosures

• No disclosures/conflicts of interest
• I rely heavily on a blend of ASRM guidelines and my own published research
Why Am I Talking About These Issues?

Bob Fullilove, PhD  Ronald Bayer, PhD  Yuan Chang, MD & Patrick Moore, MD, MPH
Social Injustice for Fertility Care

• Strong history for discrimination by clinicians:
  • Race
  • Marital status
  • Orientation
Social Injustice for Patients with HIV

• History of discrimination in access
  • Housing
  • Schooling (Ryan White)
  • Employment
  • Health care
Social Injustice for Patients with HIV

• “Persons with HIV disease, either symptomatic or asymptomatic have physical impairments that substantially limit one or more major life activities and thus are protected by the ADA”

https://www.ada.gov/hiv/ Accessed on 5/30/17
Persistent Social Injustice for Patients with HIV Desiring Pregnancy

• Gap between ACOG, ASRM, and practice
• CDC guidelines
• State law
• In 2006, <3% of fertility clinics were willing to provide care to serodiscordant couples

How Do Fertility Physicians View the Issue?

• 1/500-1/1,000 chance of transmission/coitus
  • Depends highly on viral load
  • Depends on ulcerations for either partner
• One series from the ’90’s showed a 4.3% serconversion rate for timed intercourse with inconsistent condom use

How Do Fertility Physicians View the Issue?

• In 1990, the CDC recommended “against insemination with semen from HIV-infected men” based on a single case of transmission in the setting of limited sperm-washing techniques.

What is the Evidence?

Insemination of HIV-negative women with processed semen of HIV-positive partners

Augusto E. Semprini
Paolo Levi-Setti
Maddalena Bozzo
Marina Ravizza
Anna Taglioretti
Patrizia Sulpizio
Elena Albani
Monica Oneta
Giorgio Pardi
What is the Evidence?

Efficacy and safety of intrauterine insemination and assisted reproductive technology in populations serodiscordant for human immunodeficiency virus: a systematic review and meta-analysis

Arti Barnes, M.D., M.P.H., a Daniel Riche, Pharm.D., B.C.P.S., C.D.E., b Leandro Mena, M.D., M.P.H., a Thérèse Sison, B.A., c Lauren Barry, M.D., d Raveena Reddy, M.D., a James Shwayder, M.D., d and John Preston Parry, M.D., M.P.H.1
What is the Evidence?

HIV + ♂
HIV – ♀
Insemination

What is the Evidence?

HIV - ♂
HIV + ♀
Insemination

What is the Evidence?

What is the Evidence?

What is the Evidence?

• Safety
  • No male to female transmission of HIV
  • 8212 inseminations in HIV + ♂ HIV - ♀
    • 18 transmissions would have been expected with coitus
  • 1254 inseminations in HIV + ♂ HIV - ♀
    • 3 transmissions would have been expected with coitus
Core Takeaways

- Monthly pregnancy rates for insemination in HIV serodiscordant couples seem higher than for those treated for subfertility
- Procreative therapies seem safer than coitus
What About Different Scenarios?

• HIV + ♀ and HIV – ♂
  • Home or assisted insemination

• HIV concordant couple
  • Fewer concerns, though superinfection is possible
How is Care Evolving?

• PrEP may further reduce the risk of infection in serodiscordant couples with HIV + ♂
  – One small series showed 0% transmission with 75% of couples conceiving after 12 attempts

• PCR testing after sperm processing?

How Have Practice CDC Guidelines Evolved in 2016?

• Recommend expert consultation
• Consider donor sperm
• Screen for genital infection
• PrEP one month prior until one month after
• Cites 63-75% reduction with PrEP use
  • 90% with consistent use

Are There Ethical Issues for Knowingly Risking the Birth of a Child Infected with HIV?

• How does this compare to the risk of transmitting autosomal recessive disease?
What Can We Do to Help Our Patients Become Parents?

• Maximize wellness
• Minimize viral load
  – Avoid scalp leads/breastfeeding for seropositive ♀
• Address concurrent subfertility
• Set realistic expectations
Thank You!