HIV Meets Oncology: An HIV Clinician’s View

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HIV and Cancer Retreat
April 30, 2019
Financial Disclosures

• None
Case Presentation

• 58 year old man diagnosed with HIV in 1996
• Early years: serial ART mono and dual therapy with multidrug resistance
• Moved to CT 2005-worked in pharmaceutical field (ART development)
• I met him in 2009-applying for disability
ART Over Time


Saquinavir  Ritonavir  Nelfinavir  Indinavir  Enfuvirtide  Atazanavir  Maraviroc  Elvitegravir

Nevirapine  Lopinavir+Ritonavir  Rilpivirine  Etravirine  Tenofovir  Raltegravir  Dolutegravir  Tenofovir alafenamide  Doravirine  Ibalizumab
ART in Single Tablet Regimen

Now 1 pill a Day
2-3 ARVs co-formulated
ART Simpler and Safer
AN AIDS TIMELINE: The 1st Decade

1981

RONALD REAGAN
1981-1989

GEORGE H.W. BUSH
1989-1993

’82 “AIDS”

’83 Virus isolation

’85 First HIV test

’87 AZT approved
AN AIDS TIMELINE: The 2nd Decade

GEORGE H.W. BUSH 1989-1993

1990

92' ddl/ddC  93' d4t  Dual NRTI's  HAART  '97: NEL, DLV, Combivir

'95: Saquinavir  '96: NVP, IDV, RIT

‘92 AIDS leading cause of death adults 25-44 yrs old

Red Ribbon
Tony Awards

WILLIAM CLINTON 1993-2000

1994

‘96 HIV viral load approved

AIDS Deaths down 40% due to HAART

‘96 My Pt was diagnosed HIV+

1995

WILLIAM CLINTON

1993-2000

Red Ribbon
Tony Awards

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AIDS Deaths down 40% due to HAART

‘96 My Pt was diagnosed HIV+
AN AIDS TIMELINE: THE 3rd Decade

GEORGE W. BUSH
2001-2008

BARACK H. OBAMA
2009-2016

’00 Trizivir
Tenofovir
Lopinavir

’01 Fuzeon
‘03 Truvada
‘04 Tipranavir

‘05 Darunavir
-Atripla

‘06 Maraviroc
Raltegravir

‘07 Etravirine

’00 13th
Int’l AIDS
Conf in
Durban SA

PEPFAR:
$15B/5 yrs

25 years

30 years
AN AIDS TIMELINE: THE 4th Decade

BARACK H. OBAMA
2009 - 2016

DONALD J. TRUMP
2016 - ?

2010

'10 ACA passed
'12 IAS Conf
Wash DC

'11 RPV,
Complera

'12 Stribild

'13 Dolutegravir

'14 Elvitegravir
Triumeq

'15 Evotaz,
Genvoya,
Prezista

'16 Descovy,
Odefsey

'17 Juluca

'18 Biktarvy,
Delstrigo,
Pifeltro,
Ibalizumab

'19 Dovato
Back to Patient: Medical Problems Timeline

1996

HIV
-Salvage regimen; multiple regimens with sequential resistance and multiple side effects

Diabetes:
-Initially insulin requiring then Glipizide, Actos, Metformin

Hyperlipidemia:
-Fibrate, Rosuvastatin, Lovaza

Hypercoaguable due to homocysteinemia (DVT, PE)
-Coumadin

Subdural hematoma

Hypothyroid

Depression

2009

Tenofovir/FTC/Raltegravir/Maraviroc

2014

MSSA bacteremia/sepsis → intubated, persistent throat pain

Large 3.5 x 3.5 cm ulcerating mass centered in the region of the left vallecula and involving the left hyoglossus, genioglossus and geniohyoid muscles. The mass is seen to cross the midline and involve the median glossoepiglottic fold and also the extrinsic muscles of the tongue.
Pathology

TONGUE, LEFT BASE, BIOPSY:

- SQUAMOUS CELL CARCINOMA, PREDOMINATELY NON-KERATINIZING TYPE, WITH NECROSIS

• Immunohistochemistry:

  p16  STRONGLY AND DIFFUSELY POSITIVE (>90% tumor cells)

Interpretation
Strong expression of p16 protein in head and neck squamous cell carcinomas is associated with favorable prognosis, better response to radiation therapy, and HPV related cancers
Oncologic Timeline

9/2014

Dx

10/20-12/8/14

CRT with Cetuximab

7-9/2015

New cervical LN; FNA metastatic CA

9/2015

L MRND

10/21-11/24/15

ChemoRT carboplatin

4-8/2016

Hilar LN, axillary LN, RUL nodule, right chest wall: met CA

8/15/16-2/10/17

Pembroli zumab → pneu monitis

3/27-5/22/17

Cetuximab/carboplatin

DEATH (outside hospital)
Progression of Disease and Outcomes

Pt. died 3 years and 8 months after cancer diagnosis

Just prior to death, CD4=284 cells/ul and HIV viral load <20 copies/ml
Challenges for HIV Physicians

- Medical knowledge expansion:
  - New vocabulary:
    - Cetuximab=EGFR inhibitor
    - Pembrolizumab=antiPD-1 receptor (checkpoint inhibitor)
  - Natural history
    - p16
  - Side effects, drug-drug interactions
- Multiple medical consultations overwhelming
  - Serve as “translator” for patient as primary care anchor
- Keeping track given complexity of care
  - Hospital admissions
  - Test results
- Increasingly being “out of the loop” for major decisions made
Challenges for Patients

• Making and keeping track of many appointments
  – Patients with less health literacy find it nearly impossible and get lost to care
• During hospitalizations, confusion about their medications and goals of care
  – Admissions to Smilow, EP, MICU
• Who is quarterbacking their care?
  – Goals of care decisions: oncology? HIV?
• Ongoing stigma about their HIV status
Reflections

• Lots of options to treat HIV and relatively easy to suppress with current ART
• As our patients age, increasing new problems not obviously related to HIV
  – Need for HIV clinicians to gain mastery new clinical domains
  – Need to “interpret” for patients complex series of medical
• It is exceeding challenging for our patients to navigate the medical world outside of their HIV “sheltered” world
• **SHOULD WE CREATE A NEW PARADIGM FOR INTEGRATED CARE WITH ONCOLOGY AND HIV PROVIDERS?**