

#### NORTHWEST AIDS EDUCATION AND TRAINING CENTER

# HIV and Non Hodgkin Lymphoma

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# **AIDS-Defining Malignancies**

- Kaposi sarcoma
- NHL now has a higher incidence than Kaposi Sarcoma in the US
- Primary central nervous system lymphoma
- Invasive cervical cancer



### **Non-AIDS-Defining Malignancies**

- Anal cancer (120 fold ↑)
- Hodgkin lymphoma (20 fold ↑↑)
- Hepatocellular cancer (5 fold ↑)
- Lung cancer (2 fold ↑)

Note: Risk of breast cancer, prostate cancer, colon cancer is not increased in HIV (+) people in comparison to HIV (-) people



#### Kaposi Sarcoma





JAMA 305:1450,2011

### **Diffuse Large B-Cell Lymphoma**





## Burkitt Lymphoma





- In the US, approximately 6% of all patients with diffuse large B cell lymphoma, and approximately 25% of patients with Burkitt lymphoma are HIV (+).
- These % vary by demographic group.



# Malignancy and HIV

- In the HAART era, non AIDS-defining malignancies comprise 50% of the cancers in people living with HIV
- We should offer age-appropriate cancer screening to our HIV (+) patients
- Since 20% of HIV (+) people in the US don't know their HIV status, recommend HIV testing in patients with anal cancer, NHL, Hodgkin lymphoma, or ITP



### Lymphoma in HIV-Positive People

- 50-100 fold increased incidence of aggressive NHL (in comparison to HIV-negative people)
- Some increased incidence of Hodgkin lymphoma
- Primary central nervous system lymphoma CD4 cells < 50/μl (and often < 10/μl)</li>



# HIV-Associated NHL: Practical Approach

- Diffuse large B cell (most common)
- Burkitt lymphoma
- Primary CNS lymphoma (rare today)
- Plasmablastic lymphoma (rare)
- Primary effusion lymphoma (rare)



# **HIV-Associated NHL**

- B symptoms common
- Often extra nodal (liver, gastric, rectum, kidney, skin involvement)
- Clinically aggressive
- Stage similarly to HIV (-) NHL





# AIDS Malignancy Consortium Clinical Trials

- We are a core site for AMC clinical trials
- AMC 075 R-EPOCH ± vorinostat for HIV (+) people with diffuse large B-cell lymphoma and CD4≥50/µl

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# **HIV-Associated DLBCL**

- Multiple studies of CHOP or EPOCH variants ± Rituximab
- EPOCH with concurrent or sequential rituximab (AMC 034)
- concurrent better, OAS 70% at 2 years\*
- Short course EPOCH with dose-dense rituximab (NCI)
- OAS 68% at 5 years
- \* 23/106 patients had Burkitt lymphoma

#### Short Course EPOCH with Dose-Dense Rituximab



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# Treatment of HIV-Associated Diffuse Large B Cell Lymphoma

- Dose-adjusted R-EPOCH (preferred) or R-CHOP
- Consider not using rituximab in patients with CD4 < 50/ml</li>
- HAART
- Avoid zidovudine (more cytopenias)
- Supportive care with peg-filgrastim, pneumocystis, candida, HSV-2 prophylaxis



#### Effective Lymphoma Treatment vs Risk of Infection



#### Prognosis

 As HAART improves, prognosis is defined mainly by lymphoma-related features, and less by HIV



### **HIV-Associated Burkitt Lymphoma**

- About 1/3 as common as DLBCL
- Occurs at a higher CD4 count
- Clinically very aggressive
- Often involves extra nodal sites



### **HIV-Associated Burkitt Lymphoma**

- Treated 29 patients with DA-EPOCH-R, plus intrathecal therapy
- 10 were HIV (+), 19 were HIV(-)
- All in CR, median follow up of 4-5 years



#### **Plasmablastic Lymphoma**

- Rare (~3% of HIV-associated NHL)
- Mass lesion in gums/palate, but can be elsewhere (liver, GI tract, lungs, muscle)
- Often diagnosed by dentists
- Poor outcome (median survival 11 months; 5 year survival 24%), most deaths due to lymphoma







# Summary

- People living with HIV have a long expected survival on HAART
- As the HIV (+) population ages, ~50% of the cancers are non AIDS-defining malignancies so think about age appropriate cancer screening.
- As HAART improves, prognosis is defined more by tumorrelated features and less by HIV
- It is key to have these patients on HAART

