

HIV serology of Pediatric Cancers in Tanzania: ORCI 2005/2008 study

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Dar es Salaam

Background

- 2 million HIV infected children worldwide
- 80% from Africa
- HIV significantly increases cancer risk
- Limited available data detailing the impact of HIV on childhood cancers in Africa

Tanzania



- HDI 2008 159/177
- 40 million
 - 80% rural
 - 44% under 14 yrs
- Dodoma
- Dar es Salaam
 - 7% live here
 - 2.5 million

HIV in Tanzania

- First case reported in 1983
- Prevalence rate:
 - 2005 – 8.8%
 - 2009 – 6%
 - » *CDC office, Dar es Salaam, July 2009.*
 - Women account for 56% of total
 - Women represent twice the number of men in the 15-24yr age group.
 - » *UNAIDS, Youth and HIV/AIDS: Opportunity in Crisis, 2002.*
- Estimated that 16% of patients infected and requiring treatment currently have access to ARV's
 - An improvement since 2005 when only 3% had access
 - » *WHO, Progress on Global Access to HIV Antiretroviral Therapy 2008.*

HIV in Tanzanian Kids

- Reported HIV positive cases for children under 5yrs-4% (1987-2001)
- 80% of infants infected by HIV at birth do not survive 2nd birthday.
- Girls 15-19 yrs 6 times more likely to be infected than boys.
- Approx. 2 million orphans & children affected by HIV/AIDS.

Ocean Road Cancer Institute (ORCI)



ORCI

- Founded 1895
- Robert Koch
- National and only cancer Institute
- Services include:
 - Chemotherapy
 - Radiotherapy
 - Palliation
 - Screening

- Adult and children
- Government funded for all
- 17 bedded paediatric ward
- Two doctors and one volunteer paediatric oncologist.

17 bedded ward!



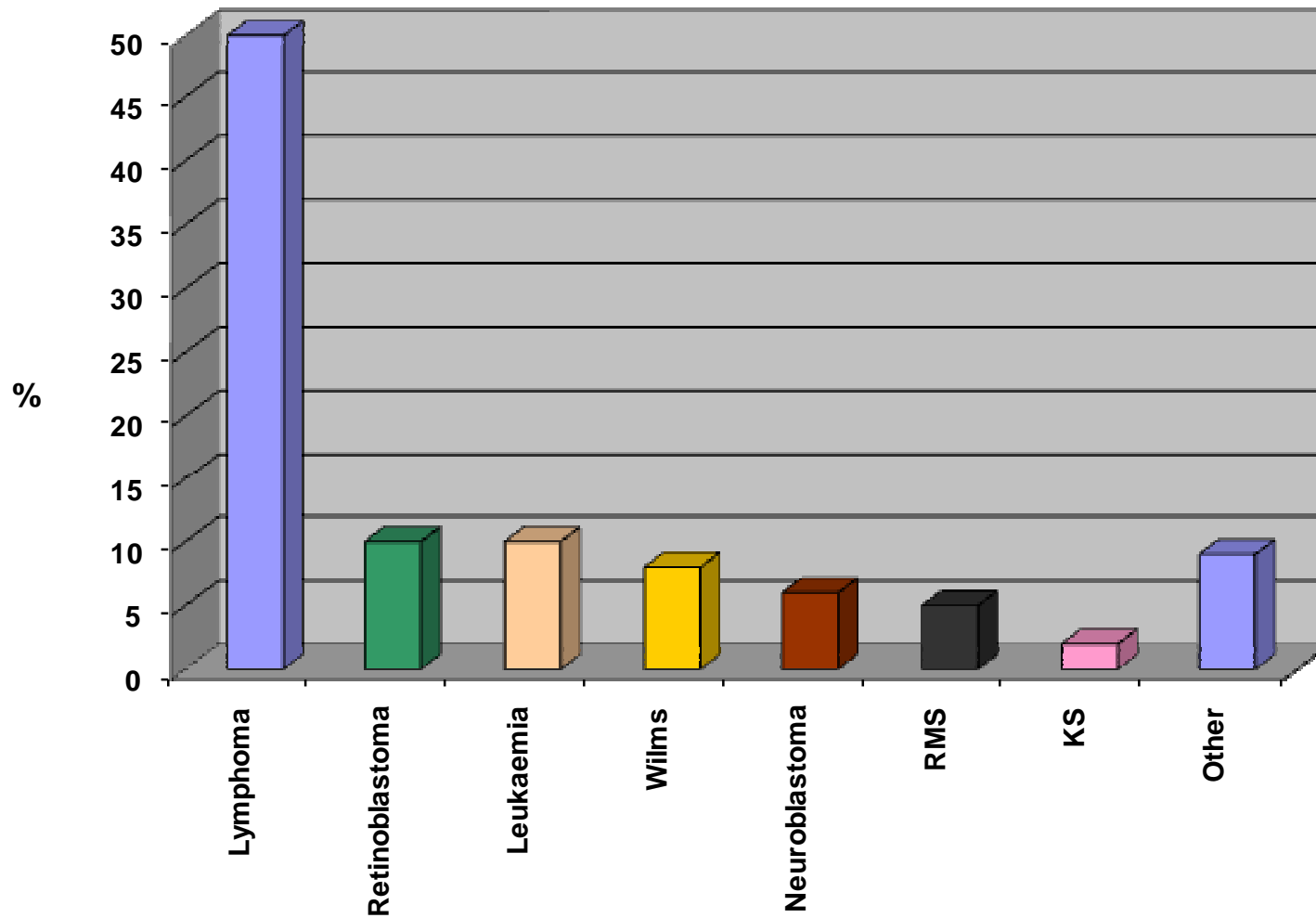
Methods

- Retrospective study
- Spectrum and clinical presentation of cancers
- <18 years old
- Referred to ORCI in 2005 and 2008

RESULTS

- Children, new patients admitted:
 - 2005: 148
 - 2008: 243

Diagnosis made as a Percentage of the total



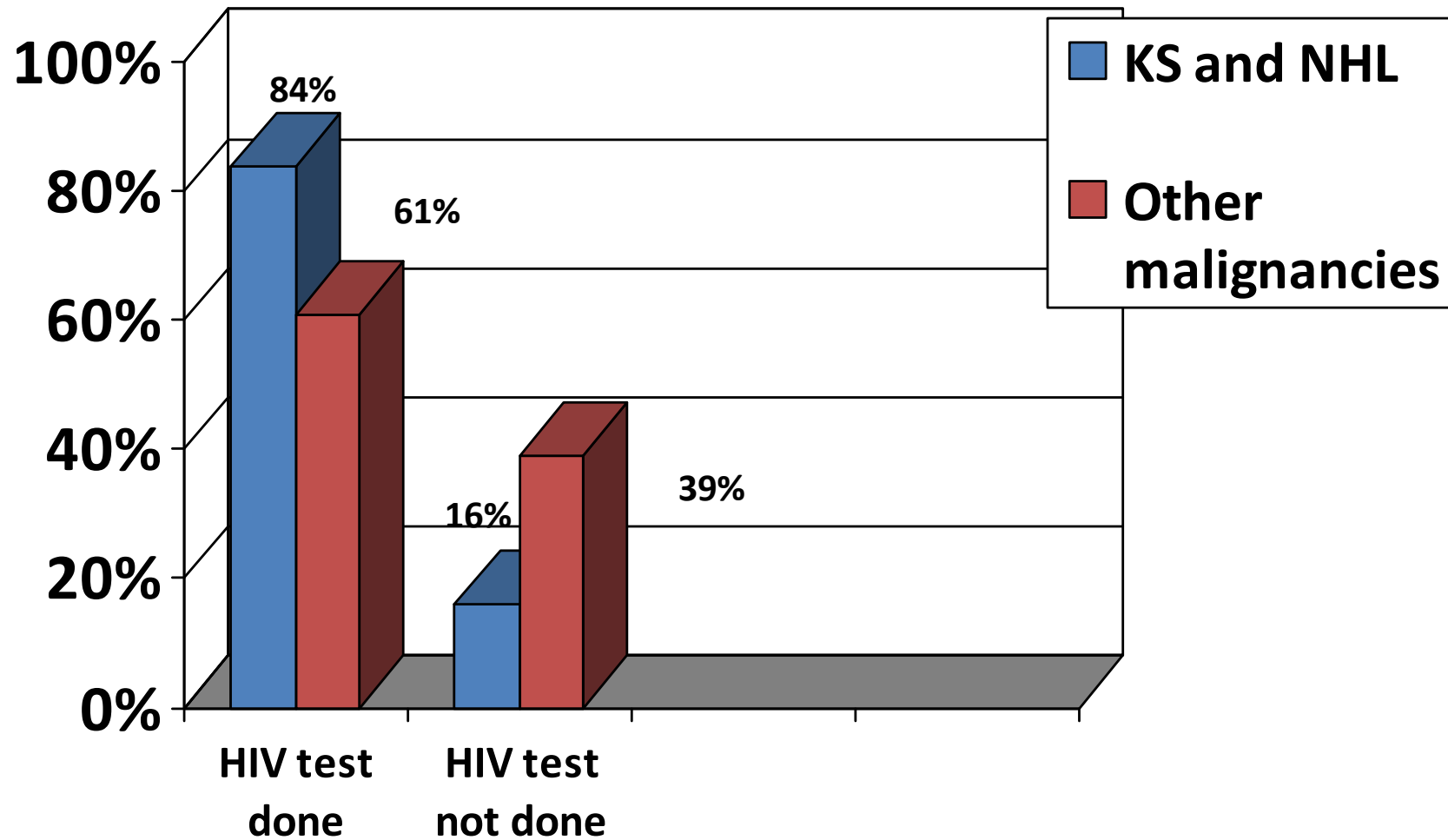
■ Lymphoma ■ Retinoblastoma ■ Leukaemia ■ Wilms ■ Neuroblastoma ■ RMS ■ KS ■ Other

HIV data from 2005

- 148 new patients
 - 104 of these were reviewed.
 - Of these 104, 52 were tested for HIV (50%):
 - 44 negative (1:1.75, F:M),
 - 8 positive(1:1, F:M) ie 15% of those tested.
 - NHL cases:
 - » pos:3; Neg:13
 - » (ie 16 out of 48 NHL cases in total ie 33% tested)
 - KS cases:
 - » pos:2; Neg:0
 - » (of 2 in total- ie 100% tested)
 - Others
 - » pos: 3 (Wilms, ALL, RMS); Neg:31
 - » (of 54 in total – ie 63% tested)

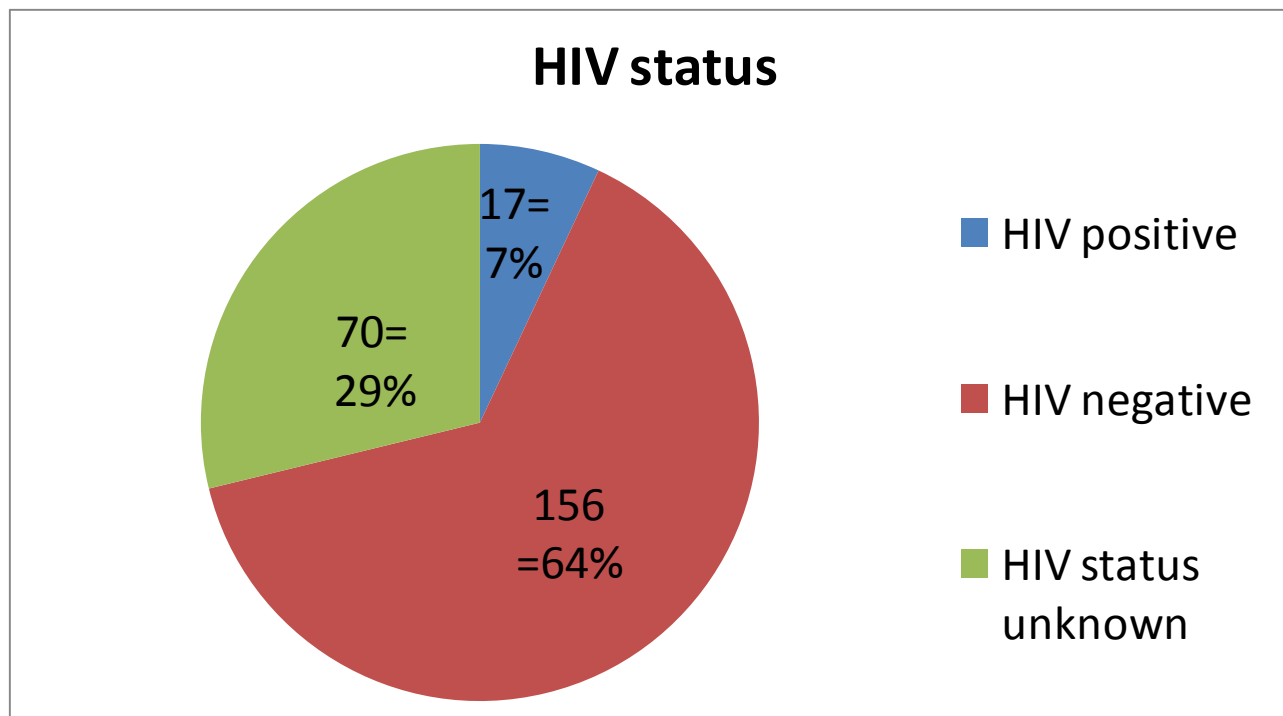
Results for 2008

HIV testing bias



Results for 2008

243 New Patients

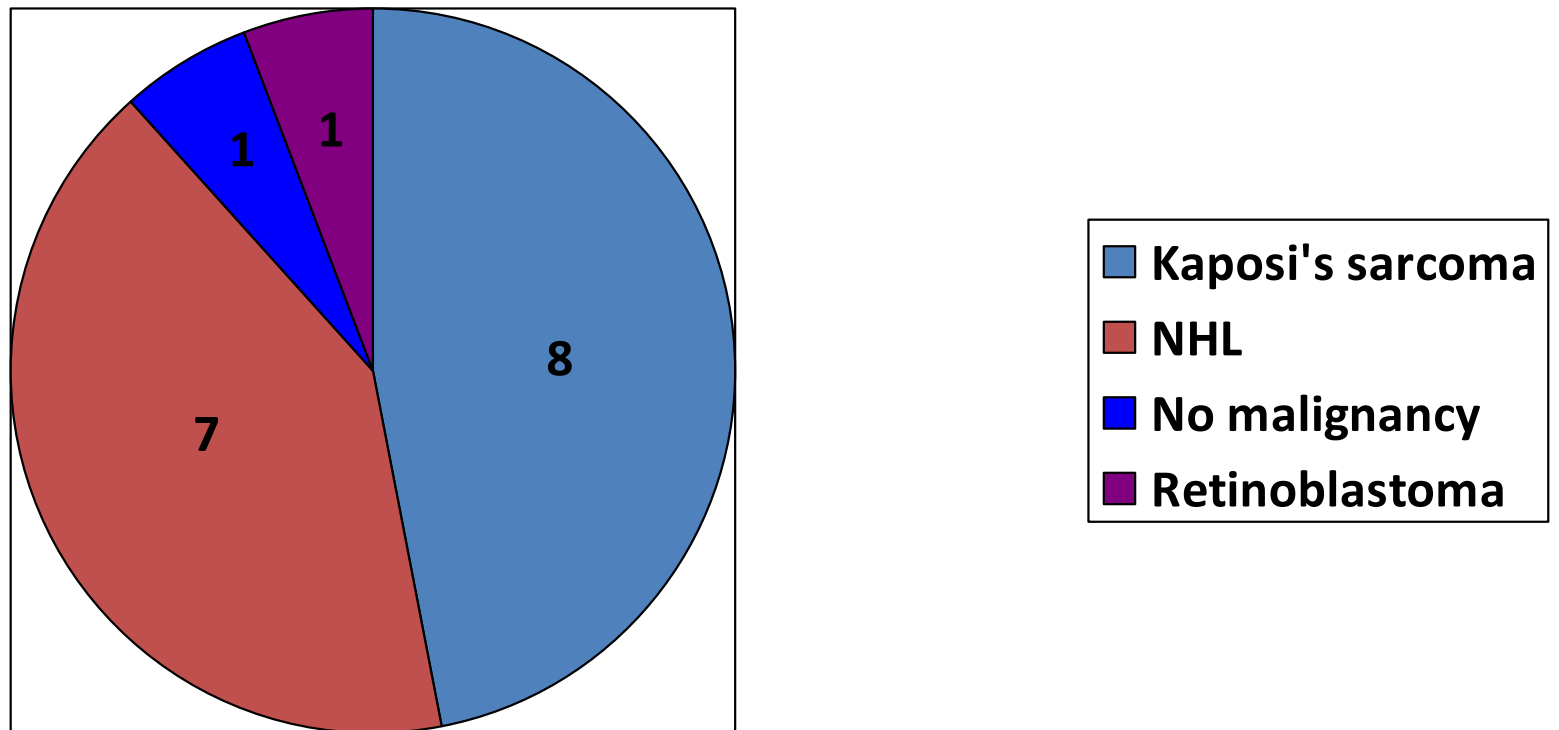


HIV data available on 71% of children.

10% of those tested HIV positive

Results

Diagnosis in 17 HIV positive patients



- **KS: 13 children**
 - 8 HIV positive – Death :2 children
 - 5 Disseminated disease including skin, LN and Lung
 - 3 LN or skin only.
 - 5 negative – Death or palliation :1 children
 - 4 Skin and LN only
 - 1 disseminated including lung parenchyma, vertebrae.
- **NHL: 76 children**
 - 7 HIV positive – 3 RIP (43%)
 - 63 negative – 31 RIP (53%)
 - 6 not known – 4 RIP
 - BL study group: 70% survival, 30% in HIV positive group.

Endemic Kaposi's Sarcoma



HIV related KS



Conclusion

- Paediatric HIV Tanzania <4%
- Paediatric cancer patients at ORCI
 - 10% HIV pos.
- Predictors of poor outcome
 - In KS – extent of disease, HIV pos.
 - In NHL – Previous treatment, HIV status.
- Data incomplete – needs more studies!

THANK YOU