



Florida/Caribbean AIDS Education and Training Center

HIV CareLink

A Newsletter for HIV/AIDS Primary Care Providers

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ABOUT US

The Florida/Caribbean AIDS Education and Training Center provides state-of-the-art HIV education, consultation, and resource materials to health care providers in Florida, Puerto Rico and the US Virgin Islands.

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Overview of Pediatric HIV Infection

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The face of pediatric HIV infection has changed markedly in the last decade. In the first 15 years of the epidemic, approximately 15,000 infants acquired HIV infection and nearly 3,000 AIDS-associated deaths. The development of effective prophylactic and therapeutic strategies has markedly reduced the number of newly infected infants and has changed clinical outcomes in infected children.

DIFFERENCES BETWEEN CHILDREN AND ADULTS WITH HIV

- Epidemiology of transmission
- Viral load usually higher in pediatric patients
Virus attacks an immune system not fully developed
- Latency period varies greatly in pediatrics
- Opportunistic infections less common in children
- Fewer meds approved for this population
- Infection affects future weight and height
- Disclosure issues
- CD4 counts:
 - CD4 percent more useful for monitoring immune status
 - CD4 in infants not predictive of PCP
 - Values higher than adults until 6 years of age
- Different clinical manifestations

TRANSMISSION

- Vertical transmission most common route (mother to child)
 - Intrauterine
 - Intrapartum
 - Post-partum (throughout breastfeeding)

DIAGNOSIS

- Routine Elisa and Western Blot not helpful in children < 18 months (due to persistence of maternal HIV antibody)

- DNA PCR method of choice for diagnosis in infants as follows:
 - 48 hours-14 days
 - 1-2 months of age
 - 4-6 months of age
- Seroreversion: negative Ab test at age 12-18 months

CLINICAL PRESENTATION

- Most asymptomatic at birth
- Other non-specific findings
 - Fever
 - Oral thrush
 - Generalized lymphadenopathy
 - Hepatomegaly
 - Splenomegaly
 - Recurrent otitis media
- Findings suggestive of HIV
 - Failure to thrive/developmental delay
 - Recurrent pneumonia
 - Tuberculosis
 - Recurrent diarrhea
 - Recurrent chronic otitis media
 - Recurrent severe bacterial infection
 - Persistent oral thrush
 - Parotitis
 - Persistent recurrent fever
- Specific signs of HIV infection
 - Lymphoma
 - Invasive salmonella
 - PCP
 - Esophageal candidiasis
 - Lymphoid interstitial pneumonitis (LIP)

Save the Date

May 1-2, 2009

Rosen Centre Hotel
Orlando, FL

18th Annual
HIV CONFERENCE

THE PEDIATRIC TRACK WILL RETURN THIS YEAR!
SESSIONS FOCUSING ON PEDIATRIC
ISSUES WILL BE PRESENTED.

FLORIDA/CARIBBEAN AIDS
EDUCATION AND TRAINING CENTER

For more information,
please visit our website:

www.FCAETC.org

To request clinical consultation, please call the
National Clinicians' Consultation Hotline:

1-800-933-3413



PATTERNS OF DISEASE PROGRESSION

- Rapid progressors (25-30%)
 - Probably infected in utero or early perinatal period
 - Severe immunocompromised in first year of life
 - Early presentation- first six months of life
- Slow progressors (50-60%)
 - Symptoms appear in the first 3 years of life
 - Mild or moderate immunodeficiency
 - Asymptomatic or few symptoms
- Long-term survivors (2-25%)
 - Live beyond 8 years of age
 - Late presentation of symptoms
 - Similar to adult presentation

PREDICTORS OF DISEASE PROGRESSION

- CD4 (count and %) is the strongest predictive value
- High maternal viral load at delivery
- Low maternal CD4 count at pregnancy
- Low CD4 (count and %)
- Development of AIDS
- High HIV RNA values
- Co-infection with CMV
- Young infant – difficult to predict who is at low risk of disease progression

MOST COMMON PULMONARY CONDITIONS

- Bacterial pneumonias
- TB
- LIP
- Bronchiectasis

ENCEPHALOPATHY

- Reported in >20% of HIV-infected African children
- Red flag: Delay, arrest or loss of developmental milestones
- HAART may prevent, arrest or reverse encephalopathy
- Possible findings
 - Impaired brain growth
 - Symmetrical motor deficits
 - Brain atrophy

GI MANIFESTATIONS

- Diarrhea: most common cause of morbidity and mortality in < one year of life
- Persistent diarrhea is common in HIV-infected children and is associated with increased mortality
- Can be complicated by dehydration and or malnutrition

MALIGNANCIES

- Lymphomas are the most common malignancies
- Unexplained constitutional symptoms merits evaluation for malignancy
 - Fever, weight loss, hepatomegaly, splenomegaly, CNS symptoms, pancytopenia, joints pains
- Neoplastic disorder may mimic opportunistic infections
- Referral to oncologist is mandatory
 - Initiate or continue HAART while on chemotherapy, watch for side effect and drug interactions
- Multidisciplinary team for management is essential

GROWTH AND DEVELOPMENT

- Main goal: promote normal development
- Red flag: lack of achievement of new milestones or loss of previously attained
- Closely monitor neurodevelopment milestones

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