Undiagnosed HIV infection: clinical features that should prompt testing

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Unusual infections - think HIV!

Disease states highly worrisome for underlying HIV

- Oral hairy leukoplakia
- Kaposi’s sarcoma
- Mycobacterium Tuberculosis
- Oral thrush

Advancing immune suppression CD4 < 200

- Pneumocystis carinii pneumonia
- Esophageal candidiasis
- Cerebral toxoplasmosis
- Cryptococcal meningitis
- CMV retinitis
Commonly seen infections with poor health

Exclude historically the following

Chronic prednisone therapy
Diabetes mellitus
Indiscriminate antibiotic use
Structural / functional lung disease
Malnutrition
Chronic illness: malignancy / dialysis

Recurrent HSV / Zoster / bacterial pneumonia / vaginal candidiasis
Persistent and severe eczema / xerosis of the skin / seborrheic dermatitis
Unusual CNS disease for age: myelopathy / myopathy / dementia (PML)
PCP: epidemiology

- Still number 1 ADI in undiagnosed patients
- Generally occurs with advancing disease
- Mortality about 20%
- Key features exist that distinguish it from TB
  - radiographic features / CD4 cell count / LDH
PCP-suggestive radiographic features

- Bilateral interstitial / reticular ground-glass opacities
  - *cavitary lesions not recognized as atypical PCP*

- “Worrisome” unexplained presentations
  - spontaneous pneumothorax in young patient
PCP-diagnostics algorithm

- Obtain CD4 count in suspect cases
  - unlikely if > 200 cells

- Obtain serum LDH level: may be high with CAP
  - high diagnostic accuracy w combo of low CD4/↑LDH
    - ranges in 600-800 range for LDH

- Confusing cases may consider:
  - high resolution CT of chest (fine ground glass)
  - PFTs with markedly low DLCO
PCP Pneumonia
Radiographic findings: TB immune-competent

- Reactivation (post-primary pattern)
  - upper lobe infiltrate +/- cavitation
  - pleural based thickening / calcification
- Primary TB: under-recognized (asymptomatic)
  - hilar adenopathy
  - mid to lower lung fields / pleural effusion
- AFB yield 70%
- Anergy / negative tuberculin skin test+ 20%
Tuberculosis
Diagnosing TB in setting of HIV infection

• Sensitivity of AFB varies widely: 36-71%  
  – majority of series near 45%

• Tuberculin skin testing is poor: 70% FNR

• Extra-pulmonary TB common: 55-75%? (Asian data)  
  – sites to look: supra / cervical / axillary
Think HIV and TB when:

In the setting of a positive AFB and atypical CxR in the absence of cavitation.

In setting of undiagnosed CAP without features of lobar consolidation:

- hilar adenopathy
- bilateral lower lobe infiltrates
- interstitial pattern
- extra-pulmonary adenopathy
Physical exam in HIV infection

- **Eyes**
  - CMV retinitis / HIV retinopathy

- **Mouth**
  - thrush / KS / apthous ulcers / OHL / angular chelitis

- **Skin**
  - infectious bacterial: syphilis / BA / folliculitis
  - infectious viral: HZV / HSV / molluscum / KS
  - miscellaneous: exaggerated response in HIV
  - psoriasis / eczema / seborrhea / xerosis / eosinophilic folliculitis
Oral thrush
Oral Kaposi’s
Aphthous ulcers
Angular cheilitis
Necrotizing gingivitis
HIV retinopathy
CMV retinitis
Primary syphilis
Secondary Syphilis
Secondary Syphilis
Bacterial folliculitis
Bacillary Angiomatosis
Tinea pedis
Herpes
Zoster
HSV infection
HSV infection
advanced disease
HPV infection - condylomata
CMV colitis with peri-anal ulcers
MORBILLIFORM
HYPERSENSITIVITY
DRUG RASH
Xerosis
Dry Skin
Eczema
Psoriasis
Seborrheic dermatitis
Eosinophilic folliculitis
Disseminated Kaposi’s
Kaposi’s Sarcoma
Cutaneous Hypersensitivity vasculitis