98. Infectious Mononucleosis

Etiology

- Epstein-Barr virus by far the most common cause (90% of cases)
- Cytomegalovirus accounts for the remainder of cases
- Main source of infection is oropharyngeal secretions; transmitted through close personal contact, such as kissing, sharing toys, etc.; rarely may be transmitted via blood transfusion
- Virus infects B lymphocytes in the lymphoid tissue of the pharynx and then disseminates throughout the lymphoid system

Epidemiology

- EBV is ubiquitous; no seasonal pattern
- Incubation period 4–6 weeks
- By age 5, 50% of children in U.S. are infected by EBV; asymptomatic carriage with lifelong intermittent excretion is common
- Other EBV-linked syndromes include Burkitt's lymphoma and nasopharyngeal carcinoma

Differential Dx

- Streptococcal or other viral pharyngitis
- Hepatitis
- Bacterial meningitis
- Cat-scratch disease
- Leukemia
- Postinfectious myocarditis
- HSV
- Human herpesvirus 6
- HIV
- Toxoplasmosis
- Rubella

Signs/Symptoms

- Severity of illness depends on age
- Infection during childhood generally only results in subclinical disease or nonspecific signs and symptoms
- Begins with flu-like illness (malaise, fatigue, and headache) for 3–5 days
- Fever (up to 40.6°C [105ºF])
- Exudative pharyngitis/severe sore throat
- Generalized, tender lymphadenopathy
- Hepatosplenomegaly
- Rash (especially if treated with ampicillin or penicillin)

Diagnosis

- Classic diagnostic triad
  - Lymphocytosis (80–90% of WBCs)
  - ≥10% atypical lymphocytes on peripheral smear
  - Serologic testing positive for EBV
- Monospot test is quick and cheap but has low sensitivity, and false-positives may occur in patients with lymphoma or hepatitis; more effective after the first week of illness
- Serologies
  - IgM and IgG are elevated early in disease
  - EA (early antigen) disappears after 6 months
  - EBNA (EBV nuclear antigen) appears several weeks to months after infection
- Liver function tests may be mildly elevated
- Mild thrombocytopenia

Treatment

- Supportive therapy, hydration, and bedrest
- Pain control for pharyngitis and lymphadenopathy
- Corticosteroids may be administered in severe cases (to reduce swelling in cases of airway compromise, for example)
- Antivirals (acyclovir) have no proven clinical benefit for the general population
- Surgical treatment is necessary in cases of splenic rupture

Prognosis/Clinical Course

- Self-limited disease in most patients
- May result in hepatitis, aseptic meningitis, encephalitis, Guillain-Barré syndrome, or lymphoma
- Rarely, splenic rupture, orchitis, myocarditis, or pneumonia may occur
- Patients with splenomegaly should avoid contact sports for 1 month