

HISTORY

- HPI** (lymph node): onset, duration, size, pain, erythema, progression, rate of change, laterality
 - Exposures:** travel, animals/insects, food (unpasteurized dairy, undercooked meat), sick contacts
 - Immunizations** (eg. MMR)
 - IV drug use and STIs**
- Associated symptoms:**
- Infectious:** pharyngitis, conjunctivitis, rhinorrhea, cough, otalgia, rash, headache, fatigue, myalgia, fevers, chills
 - Autoimmune/inflammatory or rheumatologic:** fatigue, joint pain & swelling, rash, oral ulcers, prolonged or periodic fever, features of Kawasaki disease
 - Malignancy:** weight loss, night sweats, fatigue, pallor, bruising, fever, limp, bone pain

RED FLAGS

Rule out **malignancy** and **chronic infections**.

- Infectious exposures
- Constitutional symptoms
- Generalized adenopathy without evidence of a viral infection
- Progressive painless node enlargement
- Supraclavicular node
- Enlarged node that does not regress/resolve in 4-6 weeks
- Signs of pancytopenia: pallor, bruising, bleeding
- Airway obstruction

PHYSICAL EXAM

General appearance, vital signs, & growth

Head & Neck:

- Conjunctivitis
- Acute otitis media
- Pharyngitis
- Poor dentition

Abdomen:

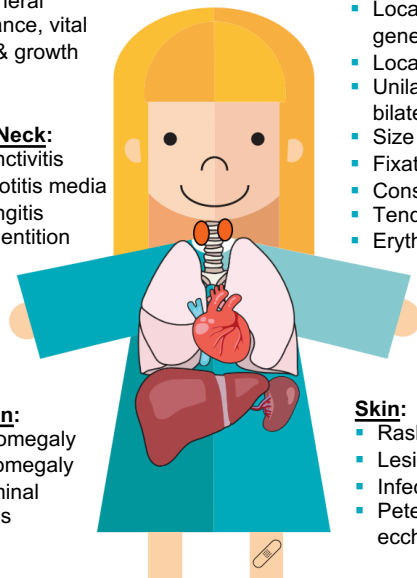
- Hepatomegaly
- Splenomegaly
- Abdominal masses

Lymph Node(s):

- Localized vs. generalized
- Location
- Unilateral vs. bilateral
- Size
- Fixation
- Consistency
- Tenderness
- Erythema

Skin:

- Rashes
- Lesions
- Infection
- Petechiae, ecchymoses



CERVICAL LYMPHADENOPATHY

ACUTE (< 7 days)

SUB-ACUTE / CHRONIC (> 1-3 weeks)

Non-tender, small (< 2 cm), no red flags

REACTIVE LYMPHADENOPATHY

Transient response to URTI, skin infections, dental infections, etc. It is the most common cause of lymphadenopathy.

LYMPHADENITIS (tender, warm) ± fever ± erythema

BILATERAL

DDx:

- Viral:** EBV, CMV, rhinovirus, adenovirus, enteroviruses, herpes simplex, measles, mumps, rubella
- Bacterial:** strep pharyngitis
- Other:** sarcoidosis, Kikuchi-Fujimoto disease

UNILATERAL

DDx:

- Bacterial lymphadenitis:** Group A strep (GAS), Staph aureus, anaerobes, etc.
- Viral:** EBV, CMV, HIV, HSV, enteroviruses
- Other:** Kawasaki disease, Syphilis, etc.

DDx:

- Viral:** EBV, CMV, HIV, HSV, enteroviruses
- Bacterial:** M. tuberculosis, atypical mycobacterium, cat scratch disease (Bartonella)
- Malignancy:** lymphoma, acute leukemia, etc.
- Other:** Kawasaki disease, toxoplasmosis, etc.

INVESTIGATIONS

Not all children require investigations.

- Basics:** CBC & differential, CRP
- Infectious:** throat culture, serology as indicated (EBV, CMV, Bartonella, etc.), TB skin test, blood culture if child is toxic
- Imaging:** U/S, chest x-ray (for mediastinal mass)
- Malignancy:** peripheral blood smear, alkaline phosphatase, tumour lysis markers (LDH, urate, PO₄, Ca, K), biopsy

MANAGEMENT

Guided by diagnosis (not an inclusive list)

- Reactive:** observe, re-evaluate in 2-4 weeks
- Bacterial lymphadenitis:** antibiotics with Staph aureus and Strep pyogenes coverage
- Viral:** supportive care
- Malignancy:** oncology consult
- Inflammatory:** rheumatology consult, IVIG for Kawasaki disease

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