LYMPHADENOPATHY (≤ 2 cm), no red flags

**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

**ACUTE (< 7 days)**
- 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.

**CERVICAL LYMPHADENOPATHY**
- **Head & Neck:**
  - Conjunctivitis
  - Acute otitis media
  - Pharyngitis
  - Poor dentition

**GENERAL PHYSICAL EXAM**
- General appearance, vital signs, & growth

**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

**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

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

**SKIN**
- Rashes
- Lesions
- Infection
- Petechiae, ecchymoses

**DIAGNOSIS**
- **Cervical lymphadenopathy**

**EXCHANGES**
- **CONSTITUTIONAL SYMPTOMS**
  - Fever, joint pain, lymphadenopathy

**GENETIC IMPACT**
- **Family History**
  - Genetic predisposition

**PHYSICAL EXAM**
- **General**
  - Signs, growth
- **Head & Neck**
  - Enlarged lymph nodes
- **Subacute / Chronic**
  - Long-term lymphadenopathy

**MANAGEMENT**
- **Guided by diagnosis**

**INVESTIGATIONS**
- **CBC, differential, CRP**
- **Immunizations**
- **IV drug use and STIs**

**REFERENCES**
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