

# Approach to a child with lymphadenopathy

## Dr. Alaa El-Suity

### Infective

- Tender (not in tuberculosis)
- Acute onset
- Evidence of infection in drainage area
- Soft/fluctuant
- Local

### Non-infective

- Non tender
- Chronic onset
- Evidence of systemic manifestation
- Firm/hard
- Generalized

### Common infectious causes:

#### Bacterial

- Group A streptococcus
- Mycobacteria: typical and atypical
- Anaerobic bacteria
- Diphtheria
- Brucellosis
- Actinomycetes
- Gram -ve enterios

#### Viral

- Epstein-Barr virus
- Herpes simplex
- Measles
- Mumps
- Coxsackie
- Adenovirus
- HIV
- Rubella

#### Fungal / \*Parasitic

- Aspergillosis
- Candida
- Cryptococcus
- Histoplasmosis
- Coccidioidomycosis
- Sporotrichosis
- Blastomycosis
- Toxoplasmosis\*

### Malignancy

- Hodgkin's/Non-Hodgkin's Lymphoma
- Leukaemia
- Neuroblastoma
- Thyroid tumours
- Metastatic
- Rhabdomyosarcoma

### **Common Other Causes:**

- Kawasaki Disease
- Immunodeficiency diseases
- Autoimmune disease (SLE, Still's disease)
- Castleman disease
- Histiocytosis X
- Serum sickness
- Sarcoidosis

### ***Mimicking Lymphadenopathy:***

- Branchial cleft cyst
- Cystic hygroma
- Thyroglossal duct cyst
- Epidermoid cyst
- Sternocleidomastoid tumor

# CASE PRESENTATION

- 10 year old; Male from Ramechap
- Swelling in the neck 5 months
- Fever for one month
- Weight: 15 Kg; Height: 113 cms
- Physical Exam – Multiple lymph nodes in the neck; vertical and horizontal; non tender; mobile;
- other: unremarkable

## This case

- Non tender
- Chronic onset
- No evidence of fungal disease
- No evidence of autoimmune disease

### Possible diagnosis:

- Tubercular
- Malignancy
- Sarcoidosis

## Investigations

- Had a routine CXR
- Blood: WBC: 7,000/cmm; N: 72%;

L: 28%; Hb: 8.4gm%.

- Mediastinal mass:
- a. Malignancy
  - b. Tubercular
  - c. Sarcoidosis

## This case

- Nonspecific- no pressure effect of mass surrounding structures
- Chronic onset with fever and loss of weight
- mass detected on CXR
- Physical findings : cervical lymphadenopathy; fever; loss of weight.
- 50% mediastinal masses are malignant in children

Histopathology of the lymph node showing caseating necrosis and Langhans' type giant cells (arrow).

## This case:

- Non tender cervical lymph node
- Apyrexial
- CXR: mass in the anterior mediastinum
- Lungs normal
- Biopsy of cervical lymphnode suggestive of tuberculosis