

## Lymphadenopathy

### Presentation

#### Definition

Lymph nodes that are abnormal in size, consistency or number. The extent of the lymphadenopathy is defined as localised, regional or generalised.

### Clinical Findings

Close attentions should be paid to the size, location, consistency and number of enlarged lymph nodes, as well as the patient's age and any associated symptoms.

### Causes

Reactive: infection	Bacterial (pyogenic, TB, Brucella, syphilis), fungal, viral (EBV, CMV, HIV), toxoplasmosis
Reactive: non infective	Sarcoidosis, connective tissue disease, dermatopathic (eczema, psoriasis), drugs (phenytoin).
Malignant	Lymphoma, metastases, histiocytosis

### History (key aspects)

- Age of patient: reactive, non-malignant causes more common in younger patients.
- Symptoms of infection: these include pharyngitis, conjunctivitis, skin ulceration, localised tenderness, genital sores or discharge.
- Symptoms of metastatic malignancy e.g. cough and haemoptysis (lung cancer), weight loss.
- Social history: exposure to pets, occupational exposures, travel history and sexual history may suggest specific disorders.
- Duration of lymphadenopathy: persistent lymphadenopathy (more than 4 weeks) is indicative of chronic infection, collagen vascular disease or underlying malignancy. Whereas localised lymphadenopathy of brief duration often accompanies some infections (e.g. infectious mononucleosis).

### Signs

The most important physical examination findings are lymph node size, consistency, mobility and distribution:

- Size: lymph node size varies according to their location. As a general rule lymph nodes measuring less than 1cm are rarely of clinical significance. In contrast lymph nodes greater than 2cm that are persistent for more that 6 weeks should be thoroughly evaluated.

- Consistency: in general should not be used to differentiate between benign and malignant causes. However rock-hard nodes are seen more commonly in malignancy, whereas tender nodes often suggest an inflammatory disorder.
- Mobility: fixed or matted nodes suggest metastatic carcinoma, whereas freely movable nodes may occur in infections, collagen vascular disease and lymphoma.
- Distribution: in most cases, generalised lymphadenopathy is a sign of systemic disease, especially when associated with splenomegaly. Inguinal lymph nodes may occasionally be enlarged in healthy individuals, whereas enlarged supraclavicular lymph nodes are concerning for underlying malignancy or infection.

## Investigations

Initial Investigations in primary care	If further investigation and referral is indicated (please perform in primary care at time of referral)
Full History	Full history including travel, pets, sexual and employment history.
Full examination	Full examination noting spleen size
Other investigations may not be required at this stage if a likely cause has been established e.g. viral illness.	FBC, CRP, U+E, LFT, calcium, protein electrophoresis HIV, hepatitis B and C, CMV, EBV, toxoplasma

## Referral

### Urgent referral

- Lymphadenopathy > 2cm persisting for a period of > 6 weeks with no obvious infective cause
- Progressively worsening adenopathy without any cause
- Lymphadenopathy for < 6 weeks if any of the following: Progressively worsening adenopathy without obvious cause found. B symptoms. Enlargement of liver/spleen. Global adenopathy without a cause. Cytopenias . Hypercalcaemia.
- Cervical lymphadenopathy: consider ENT referral at the same time to speed up diagnosis
- Axillary lymphadenopathy: consider breast referral to speed u p diagnostic pathway
- Inguinal or generalised lymphadenopathy: haematology referral only.

## References

- 1) National Collaboratory centre for cancer (2015). Suspected cancer: recognition and referral. Full guidelines June 2015. National Institute for Health and Care Excellence.
- 2) Royal United Hospitals Bath, Clinical Haematology guidelines: Referral pathway for patients with lymphadenopathy.