

# Acute and Chronic Lymphadenopathy – An Overview

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***Abstract:LYMPHADENOPATHY (LAP) or ADENOPATHY is a any disease of the lymphnodes which is abnormal in size, number and consistency. Lymphadenopathy is a most common condition in any form of disease which is noticed by a physician .But it is not a peculiar symptom of any disease. An inflammatory type of lymphadenopathy is called as LYMPHADINITIS. In this review Article we can see the classification of lymphadenopathy pathogens, clinical approach and clinical evaluation of lymphadenopathy and differential diagnosis. Depending upon the size and extent of lymphadenopathy we can evaluate the condition of the patient and give appropriate treatment.***

***Keywords: Lymphadenitis, lymphadenopathy, Adenopathy, Lymphnodes .***

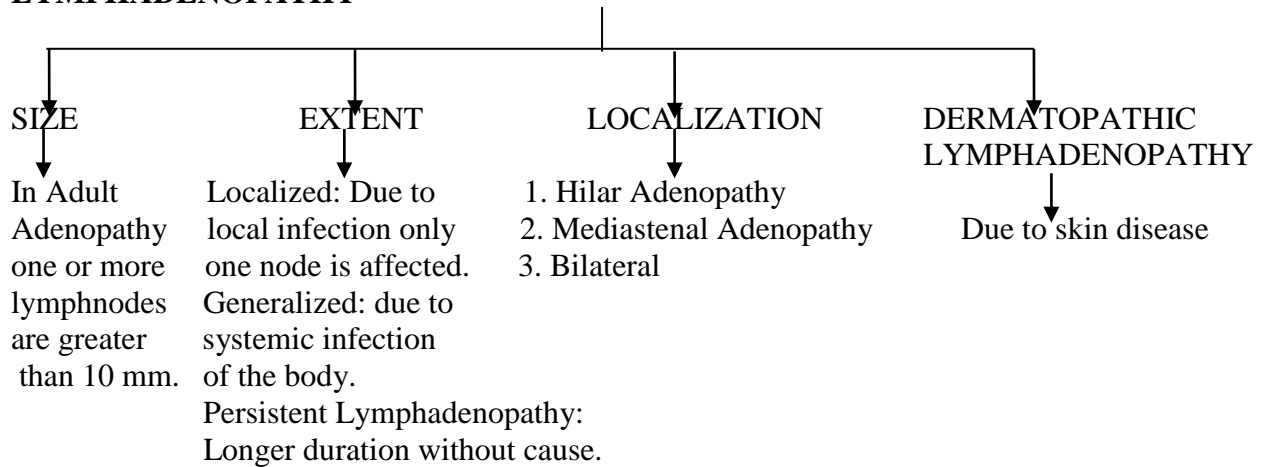
## 1. INTRODUCTION:

Lymphadenopathy or Adenopathy is a enlarged ,swollen or tender lymphnodes. It is one of the most common feature in any disease of the lymphnode due to viral, infection , bacterial, fungal and autoimmune disorders (1). But it is not a specific feature of any disease. Lymphnodes are very important for our body .It act as a defense system of our human body . usually lymphnodes are 1cm in size .More than 1.5 cm (3) it considered as abnormal. Usually lymphnodes are not visible outside .once they swollen ,it becomes visible some parts of our body.(1).swollen lymphnodes are extremely painful and disfiguring .(1).Enlargement of lymphnodes usually associated with the fever ,weight loss,night sweats and pain. There are 600

lymphnodes are there in our body . but only 3 lymphnodes are palpable normally in healthy people [ submandibular ,Axillary ,Inguinal nodes.](3).Identifying the swollen lymphnodes will discover the serious illnesses such as AIDS,TB ,lymphoma and Metastatic carcinoma.Depending upon the Metastasis will evaluate the patient efficiently and correctly.

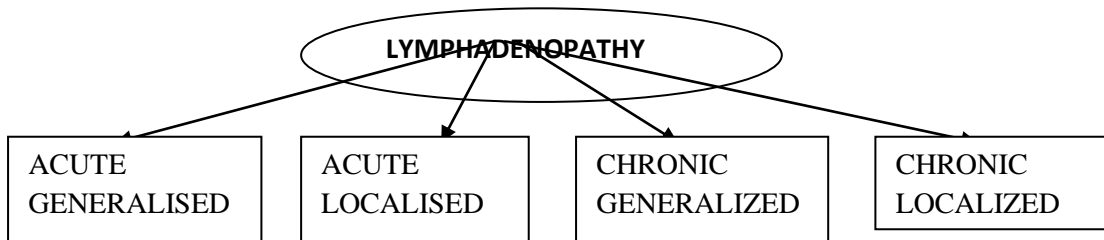
**CLASSIFICATION OF LYMPHADENOPATHY:**

**LYMPHADENOPATHY**



**PATHOGENS OF LYMPHADENOPATHY: ( 2 )**

Lymphadenopathy usually caused by bacteria, viruses and fungal infection. Others are Auto immune diseases such as Rheumatic Arthritis, Lupus Erythematosus, Cancer, Sarcoidosis(1).



Acute Generalised	Lymphoma
	HIV
	Syphilis
	Cat-scratch-disease
	EBV

	CMV
	Inflammatory bowel disease

Acute localized	Cervical	Group a streptococci, EBV, TB, cat-scratch-disease, lymphoma, temporal arteritis
	Periauricular syndrome	Conjunctivitis, adenovirus, tularemia
	Epitrochlear	Hand infection( medial 3 fingers), syphilis
	Inguinal	Syphilis, chancroid, herpes, HIV

Chronic generalised	Post transplant lympho proliferative disorder
	Syphilis
	TB
	Histoplasmosis
	Cryptococcosis
	Hyperthyroidism

Chronic localised	Castleman's disease
	TB
	Cryptococcosis
	Histoplasmosis
	Kikuchi-fujimoto disease

### Non-infectious:

In many conditions, Lymphadenopathy associated with, sarcoidosis, Lymphoma, SLE, metastatic malignancy, Rosai-Dorman reactive Lymphoid hyperplasia, Dermatopathic Lymphadenitis, Kimura Disease and other metabolic / storage disease.

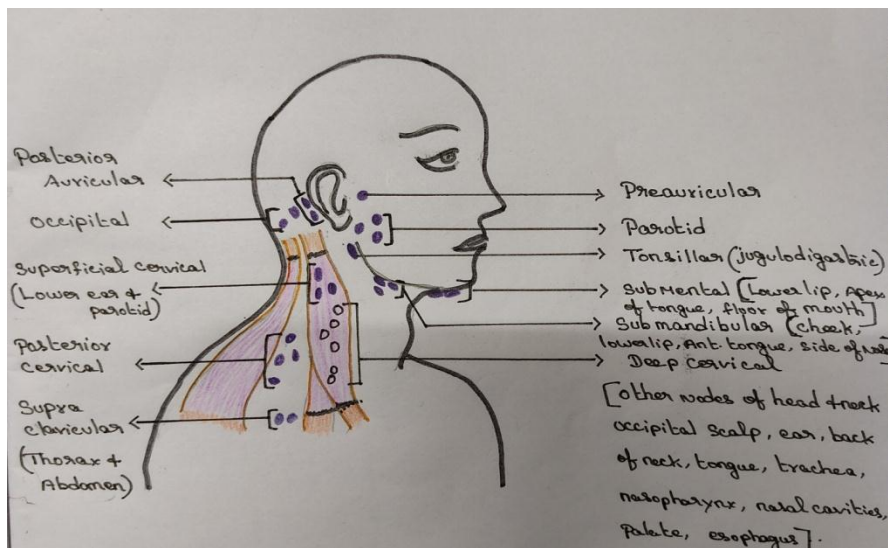
Other Pathogens are foreign body reaction, drug reactions, extramullary hematopoesis.

### Discussion:

Lymphadenopathy is a common clinical finding, underlying the local and systemic diseases. It considered as a sign of infection due to various pathogens(2). Lymphadenopathy can be detected by Palpation by the Physician. Some Lymphnodes are not visible properly. It can be seen by X-ray, positron emission tomography(PET)scan and computer tomography(CT)(5).A patient with lymphadenopathy can be investigated by FNAC (6).It is a useful method when compared to excisional biopsies (6).To know the cytology of lymphnodes is another way to conclude the underlying disease . Finally the pathologist should reveal the diagnosis depending upon the staging of the lymphnode and grading of the lymphnode.(staging is given by physician and grading is given by pathologist.)

## CLINICAL EVALUATION :

Clinically careful history and general examination of the lymphnodes, leads to a proper Diagnosis. Lymphnodes around the neck and under jaw are most commonly affected. Common infections that cause LAP is tooth infection or abscess, ,viral infection ,upper respiratory infection ,(1),conjunctivities ,recent immunization and cat scratch disease( 7).Most of causes are benign in nature .sometimes can turns to CA ( carcinoma).in the head and neck area .Scalp infection such as dandruff and dermatitis leads to swollen scalp lymphnodes.Axilla/ underarm lymphnodes are essential for diagnose the Breast cancer / lymphoma//leukemias.(1,7). some reactive infections in the arm also a common cause of Axilla/ Armpit lymphnodes enlargement .Determination of extent of lymphnodes play a important role in staging of the disease.



In the lung infection ,supra clavicular nodes become enlarged and in the inflammatory conditions like [TB , Sarcoidosis ] above the collar bone (Clavicle) lymphnodes are palpated and becomes swollen .In sexually transmitted diseases lymphnodes of groin become affected (1).Some Genital cancers ,local or lower extremity infections they could also leads to lymphadenopathy. According to the Size ,Consistency, tenderness, matting ,and location ,lymphnodes are evaluated .

## SIZE:

More than 1 cm considered as abnormal . Epitrochlear nodes 0.5 cm and inguinal nodes 1.5 cm should be considered as Abnormal (8,9).Childrens more than 2 cm in diameter considered as granulomatous diseases or cancer (Lymphoma) (10).

**PAIN :**

Because of the stretches of lymphnode capsule, patient feels pain over the lymphnode usually seen in inflammatory or suppurative lesions.

**CONSISTENCY:**

Fluctuant nodes : suppuration

Firm nodes : Lymphoma

Metastatic nodes : stony hard nodes

**MATTING :**

Matted nodes : TB

Softer nodes : Inflammatory Or Infective Diseases.

Small shotty nodes : In children viral infection.

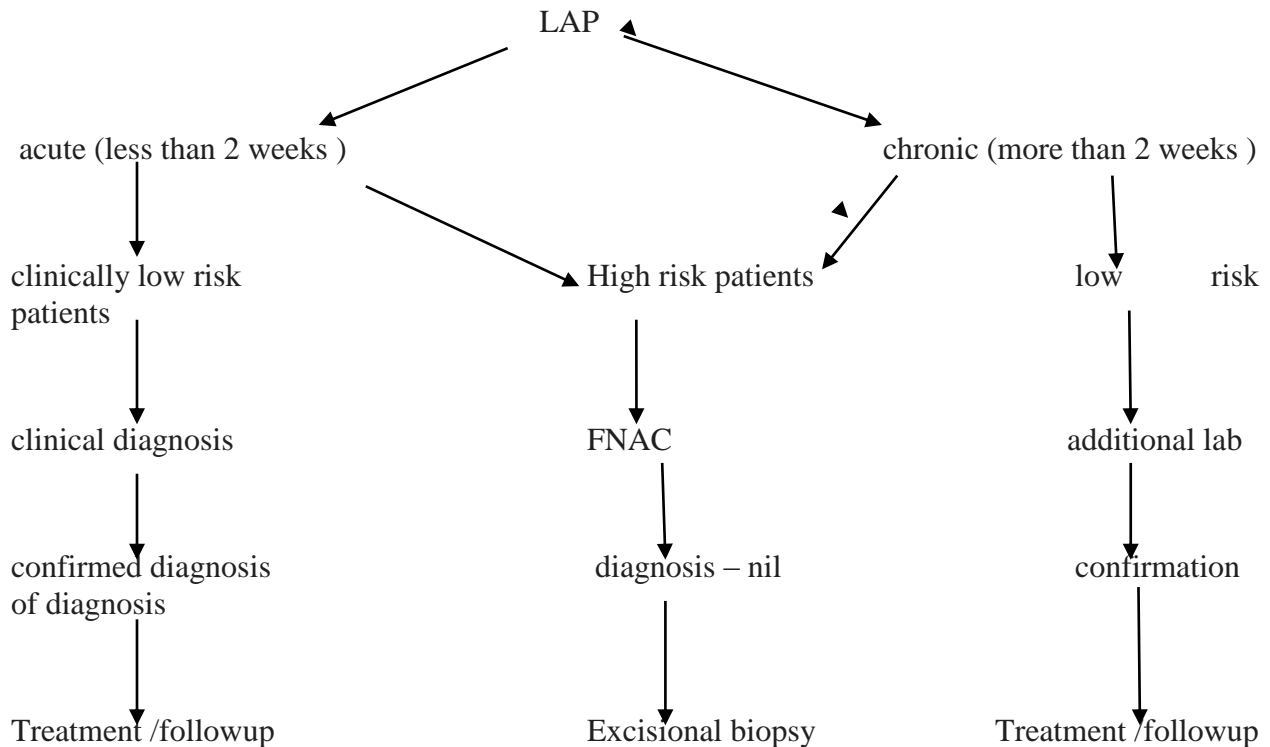
**LOCATION :**

Location of the lymphnodes is also helpful in narrowing the diagnosis (11).

Eg. Cat scratch disease – affects cervical or axillary nodes ,Supraclavicular nodes are most commonly affected associated with CA in mediastinum, esophageal CA and lung .

In generalized lymphadenopathy patients shows that there should be systemic illness in the history and the findings are joints problems and oral ulcers rashes and hepatomegaly and splenomegaly suggested as a disease of connective tissue as a reason.

**CLINICAL APPROACH:**



**DIFFERENTIAL DIAGNOSIS:**

Cat scratch disease ,Toxoplasmosis, Lyme disease,tularemia Human immune deficiency virus(HIV) , syphylis, Scrub typhus, Kimura’s disease.

**WHEN SHOULD I SEE THE DOCTER REGARDING SWOLLEN LYMPHNODES?**

Lymphnode enlargement is very serious due to the following

1. Lymphnodes swollen all of a sudden
2. Lymphnodes increasing in size more than 2 cm.
3. Extention of the glands.
4. Duration of the swollen Lymphnodes more than 2 weeks, in children more than 5 days.

**Management**

1. Infection caused by bacteria.—Antibiotics
2. Antiviral drugs
3. Non Steroidal AntiInflammatory Drugs ( NSAIDS)

#### 4. Abnormal Swelling due to malignancy – Surgery, Chemotherapy, Radiotherapy

### 2. Conclusion:

To conclude, in this article we have learned that Lymphnodes play major role in our body. It preserves our body from all unwanted diseases. LAP is caused by some definite underlying disease. Depending upon the extent of LAP we can treat the patient absolutely. FNA Cytology is the best golden method for investigating LAP. No specific treatment for swollen lymphnode. Removal of underlying cause is the effective treatment part. In some diseases such as Kimura's disease, Lymphadenopathy is a major clinical symptom. If a person is suffering from Lymphadenopathy, then he/she has to definitely consult a Pathologist for his/her treatment.

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