Difference Between Lymphadenopathy and Lymphadenitis

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Key Difference – Lymphadenopathy vs Lymphadenitis

The clinical signs related to lymph nodes can be immensely helpful in localizing most of the pathological conditions. Lymphadenopathy and lymphadenitis are two such signs that are elicited by a variety of clinical conditions. The enlargement of lymph nodes is identified as lymphadenopathy, and the inflammation of the lymph nodes is known as lymphadenitis. Some inflamed lymph nodes can get enlarged, but all the enlarged lymph nodes are not inflamed. This is the key difference between lymphadenopathy and lymphadenitis.

What is Lymphadenopathy?

The enlargement of lymph nodes is identified as lymphadenopathy in medicine. This is a feature of the inflamed lymph nodes. The enlargement of the lymph nodes is often due to the excessive proliferation of the lymphocytes within the nodes.

Causes

- Infections
- Lymphomas and leukemia

Fine Needle Aspiration Cytology (FNAC) is performed to identify the exact cause of this condition when the cause of lymph node enlargement is doubtful.
Generalized lymphadenopathy is when two more lymph nodes in different regions of the body are enlarged. The probable causes of generalized lymphadenopathy are,

- Hematological conditions such as leukemia
- Metastatic deposits in the lymph nodes
- Genetic diseases such as Kawasaki disease and Gaucher disease
- Different infectious diseases
- Niemann-pick disease

What is Lymphadenitis?

The inflammation of the draining lymph nodes is defined as lymphadenitis. Infections and various trivial inflammatory processes can be the cause of this condition.

Acute Nonspecific Lymphadenitis

The lymph nodes in the cervical region can get inflamed due to the drainage of the microbes and the toxins they produced from the infections of the teeth and tonsils. Lymphadenitis in the inguinal nodes is most often due to the infections in the
extremities. In acute appendicitis, the drainage of pus and infectious materials into the mesenteric lymph nodes can result in their inflammation.

**Morphology**

The lymph nodes are swollen, gray red and engorged. The prominent microscopic features observed are,

- Extensive proliferation of cells in the germinal centers of the lymph nodes
- There is an abundance of macrophages whose cytoplasm contains the necrotic materials they have engulfed.
- If the infection is caused by the pyogenic organisms, the number of neutrophils also increases
- Sometimes there can be extensive necrosis of the lymph node making it a bag full of pus

![Figure 02: Tuberculous Lymphadenitis](image)

**Clinical Features**

- Lymph nodes are painful and enlarged
- When there is an abscess formed within, the lymph node becomes fluctuant
- The overlying skin gets a reddish tinge.

**Chronic Nonspecific Lymphadenitis**

When the inflammation of the lymph node lasts for a longer duration than usual, that is known as chronic nonspecific lymphadenitis.
Morphology

The three principal morphological features seen in chronic nonspecific lymphadenitis are,

- Follicular hyperplasia
- Paracortical hyperplasia
- Sinus histiocytosis

Clinical Features

- Characteristically the lymph nodes affected by this condition are painless
- The enlargement of the lymph nodes happens slowly
- Most often axillary and inguinal nodes are the groups that are affected by chronic nonspecific lymphadenitis

What are the Similarities Between Lymphadenopathy and Lymphadenitis

- Both lymphadenitis and lymphadenopathy are due to the pathological conditions that affect the lymph nodes.

- Sometimes the same cause can give rise to both these conditions

What is the Difference Between Lymphadenopathy and Lymphadenitis?

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<th>Lymphadenopathy vs Lymphadenitis</th>
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<td>The enlargement of lymph nodes is identified as lymphadenopathy.</td>
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<th>Inflammation</th>
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<td>The lymph nodes are not always inflamed in lymphadenopathy.</td>
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Usually, the enlarged lymph nodes are not painful. In lymphadenitis, the affected lymph nodes can be painful.

Summary – Lymphadenopathy vs Lymphadenitis

The enlargement of lymph nodes is identified as lymphadenopathy whereas lymphadenitis is the inflammation of the lymph nodes. In lymphadenitis, the affected lymph nodes can get lymphadenopathy as well. But all the lymph nodes that have got lymphadenopathy are not inflamed. This is the principal difference between lymphadenopathy and lymphadenitis.

References:


Image Courtesy:

1. “Diagram showing the position of the lymph nodes in the neck CRUK 353” By Cancer Research UK – Original email from CRUK (CC BY-SA 4.0) via Commons Wikimedia
2. “Tuberculous lymphadenitis” By Yale Rosen (CC BY-SA 2.0) via Commons Wikimedia

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