

# Toxoplasmic Lymphadenopathy Presenting as a Palpable Axillary Mass - A Case Report

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## Abstract

Usually infection with *Toxoplasma gondii* is asymptomatic and no treatment is required. Less than 10% of the cases present with clinical symptoms such as lymphadenopathy in the head and neck region, asthenia, fever, cephalgia and arthralgia. This case report illustrates an unusual case of Toxoplasmosis presenting as a palpable axillary mass in an otherwise healthy individual.

**Keywords:** Axillary adenopathy; Toxoplasmosis

## Introduction

Infection with *Toxoplasma gondii* is usually asymptomatic in an immunocompetent host and no specific treatment is required. Less than 10% of infected subjects present with clinical symptoms [1]. Toxoplasmic lymphadenitis most commonly involves lymph nodes in the head and neck region [1, 2]. Leading clinical symptoms are non-specific and include asthenia, fever, cephalgia and arthralgia [1]. Clinically significant extranodal disease is uncommon in immunocompetent individuals but myocarditis, pericarditis, myositis, pneumonitis, chorioretinitis and encephalitis can occur [2].

We present an unusual case of toxoplasmosis presenting as unilateral swelling of the axillary tail in an otherwise healthy individual.

## Case Report

A 47 year old woman presented to her general practitioner with a palpable right axillary mass. The patient also complained of mild tenderness over the mass. She had no history of malignancy, systemic disease or known recent viral illness. A previous mammogram from 6 months prior was normal.

Ultrasound of both axillae was performed. The left axilla was normal. The right axilla showed two significantly enlarged nodes, measuring 25 x 16 mm and 24 x 17 mm. These nodes demonstrated asymmetrical cortical thickening with hyper vascularity and generalised hypoechoicity (Fig. 1-4).

A fine needle aspirate was subsequently performed. Cytology showed reactive lymphadenitis with follicular hyperplasia and non-necrotising granulomatosis. Toxoplasmosis was suggested as a possible aetiology and subsequently *Toxoplasma* serology was performed. *Toxoplasma* IgM antibodies were detected in keeping with a current or recent infection. As no other clinical symptoms occurred no specific treatment was initiated by the GP. A follow up serology test after 7 months was in keeping with past exposure to *Toxoplasma*.

## Discussion

Isolated unilateral axillary lymphadenopathy is not an uncommon clinical symptom. A long list of differential diagnoses need to be considered. Axillary nodes drain the breast, thoracic wall and upper limb. Axillary adenopathy may be caused by local pathology such as infection, inflammation or malignancy in these regions. The most common cause of unilateral axillary adenopathy is upper limb infection or injury [3]. In female patients breast malignancy needs to be excluded. Systemic illness less commonly presents with unilateral axillary adenopathy. Hodgkin's and non-Hodgkin's lymphoma and other systemic malignancy such as melanoma metastases may rarely present in this way [3-5]. Autoimmune diseases such as rheumatoid arthritis, lupus, Sjogren's syndrome and dermatomyositis are further uncommon causes.

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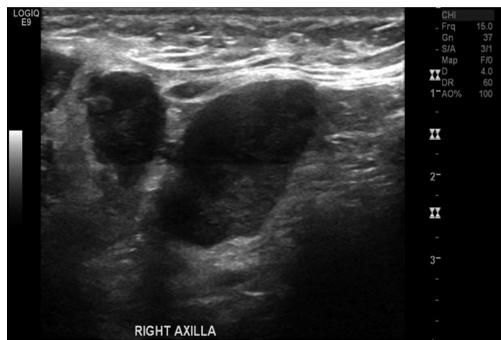
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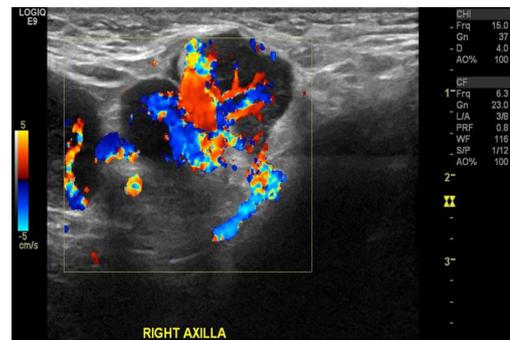
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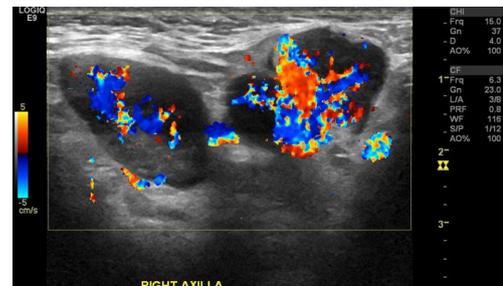
**Figure 1.** Ultrasound image of the right axilla showing enlarged lymph nodes with generalised hypoechoicity.



**Figure 3.** Enlarged axillary lymph nodes demonstrating hypervascularity on color Doppler flow investigation.



**Figure 2.** Ultrasound image of the right axilla showing enlarged lymph nodes with generalised hypoechoicity.



**Figure 4.** Enlarged axillary lymph nodes demonstrating hypervascularity on color Doppler flow investigation.

Other causes of axillary adenopathy include sarcoidosis and drug reaction [3, 6]. Toxoplasmosis presenting as unilateral axillary adenopathy is rare with only three case reports published to the knowledge of the authors [7-9].

Prevalence of toxoplasmosis is widespread and varies by age and geographic region, however less than 10% of the cases are symptomatic [1]. Most of these patients present with painless lymphadenopathy or asthenia [1]. Lymphadenitis with follicular hyperplasia and non-necrotising granulomatosis on cytology is suggestive of the disease, but correlation with serological titre levels is required for the diagnosis [10, 11]. If fine needle aspirate cytology and serology suggest toxoplasmosis infection, no further invasive intervention is required for diagnosis [10, 11].

In this case, the diagnosis of toxoplasmosis was suggested from the fine needle aspirate cytology and serology confirmed a current or recent *Toxoplasma* infection and no further investigation or treatment was required.

**Conclusion**

*Toxoplasma* infection presenting as unilateral axillary adenopathy is rare. In cases where local infection or inflammation of the upper limbs, breast or thoracic wall is excluded, an FNA should be considered for further assessment. If the FNA result is suggestive of *Toxoplasmosis* then this should

be confirmed serologically. FNA in conjunction with serology can avoid further more invasive interventions.

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