What evaluation is best for an isolated, enlarged cervical lymph node?

**Evidence-Based Answer**

The evaluation and follow-up of an isolated, enlarged cervical lymph node is determined by the presence of inflammation, duration, size, and associated symptoms. For patients with inflammatory symptoms (ie, fever, pain, erythema, and recent infection), a single course of broad-spectrum antibiotic and reassessment in 1 to 2 weeks is reasonable (strength of recommendation [SOR]: C, expert opinion). If lymph node enlargement persists despite antibiotics, yet an infectious or inflammatory cause is still suspected, further evaluation may include a PPD skin test and chest radiograph (SOR: C, expert opinion). For patients without initial inflammatory symptoms, biopsy is recommended if the lymph node enlargement persists beyond 4 to 6 weeks, continues to enlarge, or is >3 cm (SOR: C, expert opinion). Biopsy is also indicated if there is a supraclavicular lymph node or concomitant constitutional symptoms (weight loss or night sweats) (SOR: B, case series). Ultrasound or computerized tomography (CT) can also be helpful in determining which method of biopsy to choose (SOR: B, case series). Fine-needle aspiration is a minimally invasive method for obtaining a tissue sample, but excisional biopsy can provide a definitive diagnosis (SOR: B, case series).

**Clinical Commentary**

For those with no risk factors and an uncomplicated exam, counsel “tincture of time”

The foundation of managing solitary enlarged cervical nodes is a good history and physical. For patients with a benign story, no risk factors, and an uncomplicated exam, I always counsel “tincture of time” as the first-line diagnostic test.

However, this changes when patients present with risk factors for malignancy (such as being older, male, white, or with a supraclavicular node) and a worrisome story or exam finding. In these cases, watchful waiting may delay diagnosis. Sometimes, in spite of my best efforts to reassure low-risk patients, their fear and anxiety derail my attempts to practice good medicine. For these patients, the only harm an ultrasound does is to the wallet.

**Evidence summary**

Limited research exists in this area. Practice today is guided by clinical judgment, anecdotal evidence, and historical teaching. Assessment for inflammation and malignancy risk factors contributes to the diagnosis. Lymph nodes with concomitant

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malignancy risk factors warrant immediate evaluation. For lymph nodes without signs or symptoms of inflammation or malignancy, observation for 4 to 6 weeks has been recommended. Further evaluation with imaging or biopsy is indicated if the node persists beyond 4 to 6 weeks, continues to enlarge, is located within the supraclavicular fossa, or is >3 cm.1

A study of 550 patients identified 5 significant predictors of malignancy: male gender (risk ratio [RR]=2.72; 95% confidence interval [CI], 1.63–4.56), increasing age (RR=1.05; 95% CI, 1.04–1.07), white ethnicity (RR=3.01; 95% CI, 1.19–7.6), supraclavicular lymph nodes (RR=3.72; 95% CI, 1.52–9.12), and 2 or more regions of lymph nodes (RR=6.41; 95% CI, 2.82–14.58).3

For lymph nodes with inflammatory symptoms, further evaluation (including imaging) is indicated if there is no response to antibiotics. CT with contrast is considered the gold standard. However, a study of 50 patients with lymphadenopathy on CT demonstrated the sensitivity of ultrasound was 92% in identifying the same nodes.4 Another study demonstrated an ultrasound sensitivity of 100% and specificity of 97% for 154 patients with lymphadenopathy.5

Histologic evaluation after excisional biopsy is the gold standard for diagnosis. Fine-needle aspiration is an alternate, minimally invasive option for further work-up. Fine-needle aspiration had a sensitivity of 49% and specificity of 97% in a study of 550 patients.5 In a study of 309 patients with supraclavicular lymphadenopathy, fine-needle aspiration had a sensitivity of 97%, a specificity of 98%, and a positive predictive value of 98%. A study of 94 patients found that clinical exam alone was 78% sensitive in diagnosing the cause of lymphadenopathy; this improved to 93% sensitivity with fine-needle aspiration.4

Fine-needle aspiration has a higher rate of false negatives. A study of 1103 patients found a 97% sensitivity (3.4% false-negative rate) and a 99% specificity (0.9% false-positive rate) for fine-needle aspiration.4 In cases where pathology is equivocal, or where concern for malignancy is exceptionally high, excisional biopsy provides a more definitive diagnosis.

**Recommendations from others**

*Cecil’s Textbook of Medicine* recommends observing the nodes when they are soft and smaller than 2 to 3 cm and the patient has no obvious systemic illness. They note that performing a complete blood count and peripheral smear exam can aid in diagnosing systemic illness and that antibiotics are often given. They suggest performing a biopsy if the lymph node does not regress within a few weeks or if it grows. They also say the art of medicine is at play here and that if patients are particularly anxious, biopsy may be done more quickly.7

*Harrison’s Manual of Medicine* specifies that nodes >4 cm located in the subclavicular or scalene area or hard nodes fixed to surrounding tissues should be biopsied immediately, and that tender nodes are most often benign.8

**REFERENCES**