

# Doppler ultrasound feasible for first-line diagnosis of giant cell arteritis

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For patients with high clinical suspicion of giant cell arteritis (GCA), color Doppler ultrasound of the temporal artery as a first-line diagnostic tool can avoid the need for other diagnostic tests, according to a [study published online](#) May 7 in the *Annals of Internal Medicine*.

Guillaume Denis, M.D., from the Center Hospitalier Rochefort in France, and colleagues assessed a diagnostic strategy for GCA using color Doppler [ultrasound](#) of the temporal artery as a first-line diagnostic test, temporal artery biopsy (TAB) as a secondary test, and physician expertise as the reference method in a prospective multicenter study with two-year follow-up.

A total of 165 patients with high clinical suspicion of GCA (median age, 79 years) were referred to a physician with extensive experience in GCA diagnosis and management in one of the participating centers. Patients with negative ultrasound underwent TAB.

The researchers found that diagnosis of GCA was confirmed in 44 percent of patients with ultrasound, 17 percent with TAB, and 21 percent with clinical expertise and/or other imaging tests. For those with follow-up data, diagnosis remained unchanged at one month and two years.

Eighteen percent of patients received an alternative diagnosis. Among patients with a clinical GCA diagnosis, the proportion who were ultrasound-positive was 54 percent.

"The use of temporal artery ultrasound may be an efficient way to make the diagnosis of GCA in [patients](#) with high clinical suspicion and to reduce imaging costs and the need for biopsy, thereby limiting complications and the need for a surgeon," the authors write.

**More information:** Guillaume Denis et al, Diagnostic Strategy Using Color Doppler Ultrasound of Temporal Arteries in Patients With High Clinical Suspicion of Giant Cell Arteritis, *Annals of Internal Medicine* (2024). [DOI: 10.7326/M23-3417](https://doi.org/10.7326/M23-3417)

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