Title
Florid Arteritis Confined to a Single Branch of the Superficial Temporal Artery

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Florid Arteritis Confined to a Single Branch of the Superficial Temporal Artery

Biopsy of the superficial temporal artery provides vital confirmation of the diagnosis of giant cell arteritis. The vessel splits into 2 main branches: frontal and parietal. It is unknown which branch is most likely to yield a positive biopsy finding or, indeed, whether arteritis is ever confined to a single branch.

Report of a Case. A 69-year-old woman had a 5-week history of neck stiffness and malaise. The erythrocyte sedimentation rate was 55 mm/h. A 30-mm segment of the parietal branch of the left superficial temporal artery was harvested. It was processed with hematoxylin-eosin stain and an elastic Van Gieson stain. A total of 108 sections were examined at 36 different levels. None showed evidence of arteritis (**Figure 1**). Two days later, a 30-mm section of the frontal branch of the left superficial temporal artery was biopsied. Every section showed extensive granulomatous inflammation (**Figure 2**). The patient was treated with prednisone and her symptoms resolved.

Comment. It is crucial to obtain a biopsy specimen of adequate length to avoid the problem of "skip areas" in the superficial temporal artery. It is also important to examine the specimen thoroughly by reviewing sections cut at many levels because inflammation can be confined to just a few portions of the artery. Otherwise, there is risk of a false-negative biopsy result.[1,2] We describe an extreme example of a skip area: a parietal branch completely free of inflammation in a patient with extensive arteritis of the frontal branch. To our knowledge, no prior report has compared pathological findings in the 2 branches of the superficial temporal artery. In fact, surgeons usually fail to specify which branch was biopsied when they submit specimens, and no histological data exist regarding which branch is more likely to demonstrate arteritis.

Recently, it was suggested that the parietal branch, rather than the frontal branch, should be biopsied in patients with suspected temporal arteritis.[3] This approach eliminates the remote risk of facial nerve injury and usually hides the scar behind the hairline. However, this recommendation was predicated on the assumption that the prevalence of arteritis is equal in the parietal and frontal branches. We now show that selective involvement of a single vessel branch can occur in temporal arteritis.

Magnetic resonance imaging has been used to compare the involvement of the parietal vs frontal branch in temporal arteritis. In 21 patients with suspected giant cell arteritis, involvement was rated by noting the amount of mural thickening and gadolinium enhancement of the vessel and perivascular tissue.[4] On the left side, abnormalities were present in 14 patients in the frontal branch and in 6 patients in the parietal branch. On the right side,

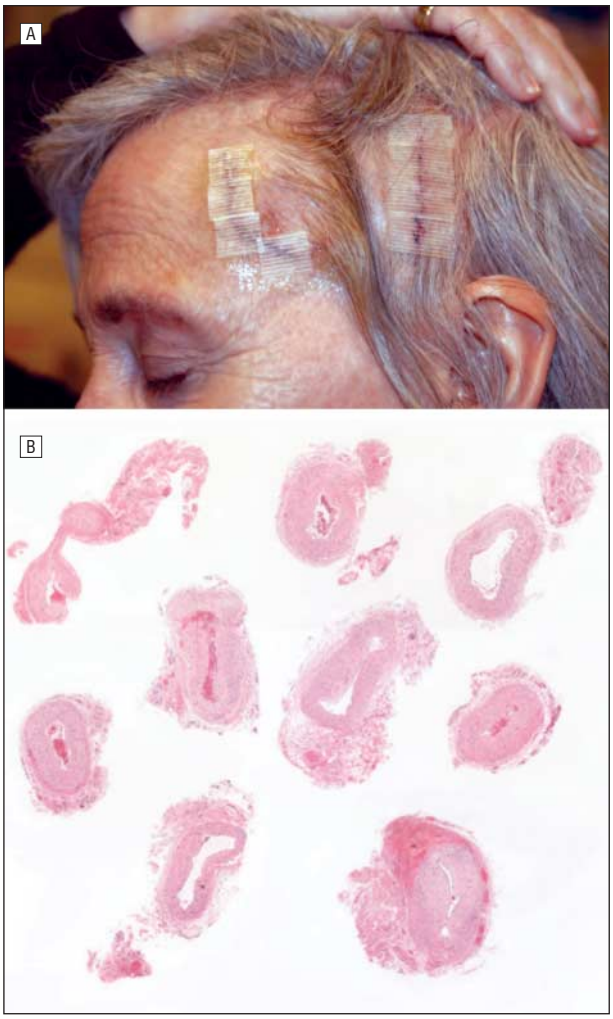

Figure 1. Patient showing biopsy sites from the parietal and frontal branches of the left superficial temporal artery (A), and representative sections, spaced evenly from 9 different levels of the parietal branch of the left superficial temporal artery, showing no evidence of arteritis (hematoxylin-eosin, original magnification ×12) (B).

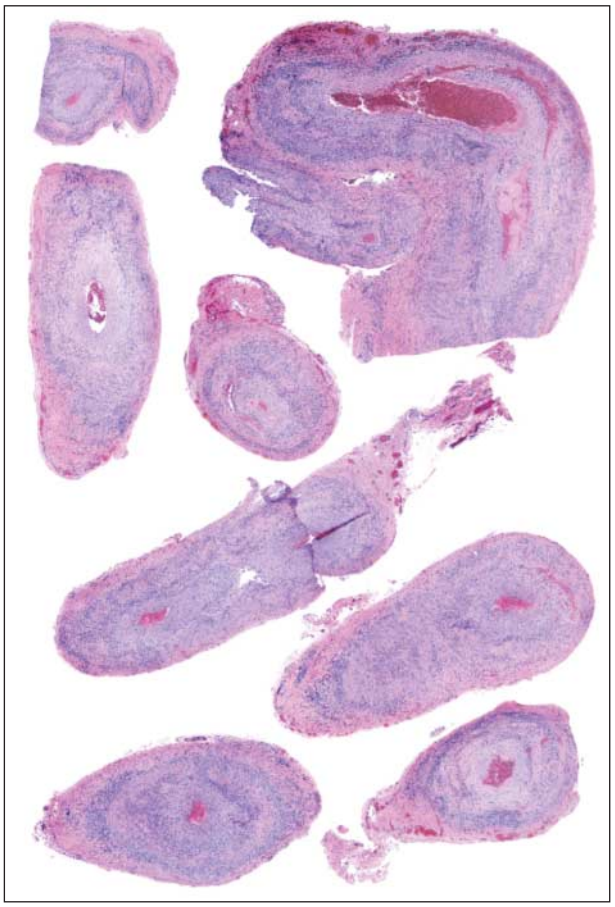

Figure 2. Representative sections from the frontal branch of the left superficial temporal artery, all showing granulomatous arteritis and mural thickening (hematoxylin-eosin, original magnification ×12).

involvement was noted in 11 patients in each branch. These data hint that arteritis may be more prevalent in the frontal branch than the parietal branch. Notably, in the majority of patients who had imaging signs of temporal arteritis, abnormalities were present in one branch but not the other, at least on one side. Although neuroimaging is not equivalent to the gold standard of histopathological analysis, this result suggests that selective involvement of a single branch of the superficial temporal artery is not rare.

Bilateral temporal artery biopsy is sometimes performed to improve the chance of obtaining a positive result, especially if systemic symptoms are present. However, only a handful of patients will have a negative biopsy finding on one side and a positive biopsy finding on the other side.[5,6] If a second biopsy is contemplated, it may be more fruitful to sample the other branch of the artery on the same side rather than the same branch on the other side. In the future, surgeons should record whether they have biopsied the frontal or parietal branch so that data can be gathered to determine which branch is inflamed most frequently. This information may increase the diagnostic yield of temporal artery biopsy.

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Systemic Uptake of Chlorpromazine After Delivery via Retrobulbar Injection

Severe pain can manifest in blind eyes as well as eyes with useful vision.[1] Patients who fail conservative therapy with oral analgesics or topical steroid and cycloplegic eyedrops can undergo more aggressive measures. Although enucleation is the definitive treatment, some patients may not be medically or psychologically ready for this.[2] As an alternative, retrobulbar alcohol injections can be used. More recently, chlorpromazine, a phenothiazine-class antipsychotic, has gained popularity. Initially described in the 1980s, reports have suggested that it provides superior pain control with a good response rate and fewer complications than alcohol injections.[1,3] Previously reported adverse effects due to chlorpromazine injections have all been localized to the intraorbital or periorbital region. Herein, we describe a patient treated with retrobulbar chlorpromazine injection who subsequently developed systemic symptoms similar to those observed in patients receiving enteral chlorpromazine.

Report of a Case. A 63-year-old woman visited our clinic 10 years after surgical repair for total rhegmatogenous retinal detachment in her right eye at an outside hospital. Her visual acuity was hand motions, with an afferent pupillary defect and intraocular pressure of 42 mm Hg. B-scan ultrasonography showed persistent retinal detachment.

A retrobulbar injection was performed to alleviate her ocular pain. Two milliliters of 25-mg/mL chlorpromazine was injected with a retrobulbar needle, taking care to ensure the drug was not injected into any major ves-