

Magnetic Resonance Imaging of Idiopathic Carotidynia

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INTRODUCTION: Idiopathic carotidynia is a self-limited neck pain syndrome associated with tenderness over the carotid bifurcation. Because this entity typically follows a self-limiting clinical course, the radiologist should be familiar with the clinical features and radiological findings of idiopathic carotidynia to avoid unnecessary invasive examinations. Nevertheless, there have been only a few reports describing the radiological findings of idiopathic carotidynia. We hypothesized that MRI could be useful in demonstrating the radiological findings of idiopathic carotidynia.

METHODS: Four patients (age range: 32-53 years; 2 females; 2 males) who met the clinical criteria established for the diagnosis of carotidynia by the International Headache Society Classification Committee were included in this study. All patients were imaged with a 1.5 T MR system (Horizon; GE) using a surface coil. T1-weighted spin-echo and T2-weighted fast spin-echo MR images were obtained. Contrast-enhanced T1-weighted images were also acquired in all patients.

RESULTS: On post-contrast T1-weighted images, all patients showed abnormally enhanced tissue surrounding the symptomatic carotid artery, localized at the level of the distal common carotid and carotid bifurcation (Figs 1, 2). The length of the enhanced segment varied from 1.5 to 6 cm. The distal common carotid artery was always involved. No associated narrowing of the vessel lumen was present in these patients. In addition, follow-up MR studies after improvement of symptoms (n=2) demonstrated the resolution of the abnormal soft tissue.

DISCUSSION AND CONCLUSION: Spatial distribution of the abnormally enhanced tissue surrounding the symptomatic carotid artery was clearly demonstrated on MRI. Furthermore, these MR findings were helpful in the management of this entity. In conclusion, MRI may be useful in demonstrating radiological findings of idiopathic carotidynia.

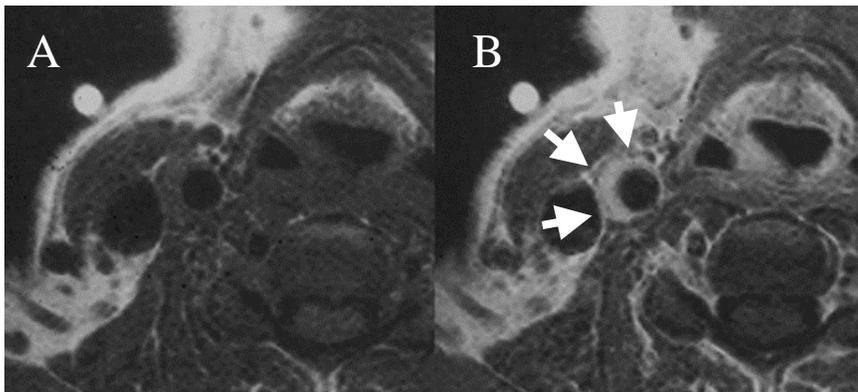


Fig 1. 47-year-old woman with right-sided carotidynia.
A) Axial T1-weighted image at the level of the distal common carotid artery shows the abnormal soft tissue signal surrounding the artery.
B) Axial contrast-enhanced T1-weighted image shows homogenous enhancement of the tissue surrounding the artery (arrows).



Fig 2. 53-year-old man with right-sided carotidynia.
Sagittal contrast-enhanced T1-weighted image shows abnormal enhanced tissue surrounding the carotid artery (arrows).