

NORTH SHORE MAGNETIC IMAGING CENTER

A joint venture of Addison Gilbert, Beverly, and Salem Hospitals and Atlanticare Medical Center

SPRING 2000

BRAIN CAPILLARY TELANGIECTASIA

*Howard Lowy, MD
Clinical Director,
North Shore Magnetic Imaging Center, Inc.*

Capillary telangiectasias typically are solitary vascular malformations which occur most often in the pons. Pathologically, they consist of dilated capillaries with some intervening normal brain parenchyma. These lesions generally are clinically silent and therefore most often are incidental findings. Occasionally they can hemorrhage. They may be found in combination with other types of vascular malformation. It may be difficult to distinguish capillary telangiectasia from cavernous angioma (another type of vascular malformation). However, cavernous angioma more often hemorrhages and also therefore more often becomes clinically manifest with seizures from the hemorrhage. Since capillary telangiectasias are a more benign malformation, it is important to recognize when the MRI findings are specific for capillary telangiectasia. Specifically, capillary telangiectasia should be suspected when there is lacey or stippled contrast enhancement with

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VIDEO SYSTEM for PATIENTS

North Shore Magnetic Imaging Center has installed a new patient comfort feature for the open MRI scanner. Patients can now choose to watch a video while being scanned. This technology, along with the audio system already in use, has helped minimize patient anxiety

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no abnormality or only subtle abnormality (on non-enhanced imaging). Occasionally, with gradient echo technique, which is highly sensitive for prior hemorrhage, the lesion may show slight hypointensity. The diagnosis of capillary telangiectasia can be made with confidence when these MRI findings are present, the patient is asymptomatic, and especially when the lesion is in the pons (although this lesion is occasionally found in the cerebral hemispheres). The illustrated case is of a 36 year old female with persistent headaches. Her MRI exam was entirely normal on the non-enhanced imaging, (see figures 3 and 4) but showed a 5 mm solitary lesion with contrast enhancement within the pons (see figures 1 and 2). Although this is not a path-proven case, these are the classic findings of capillary telangiectasia. It is the absence of any signal abnormality on the non-enhanced images which is critical in distinguishing the enhancement of capillary telangiectasia from other similar lesions such as lymphoma.

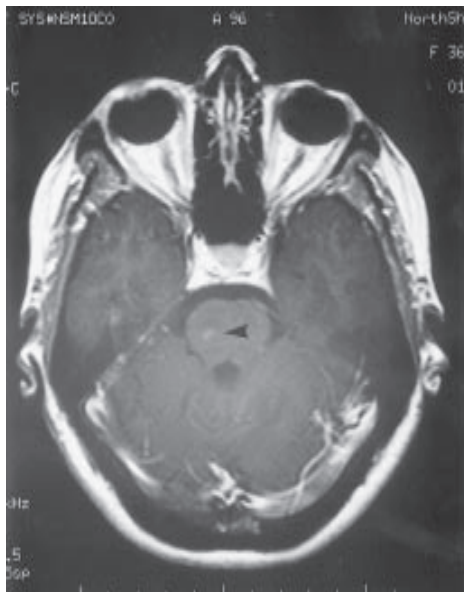


Figure 1.

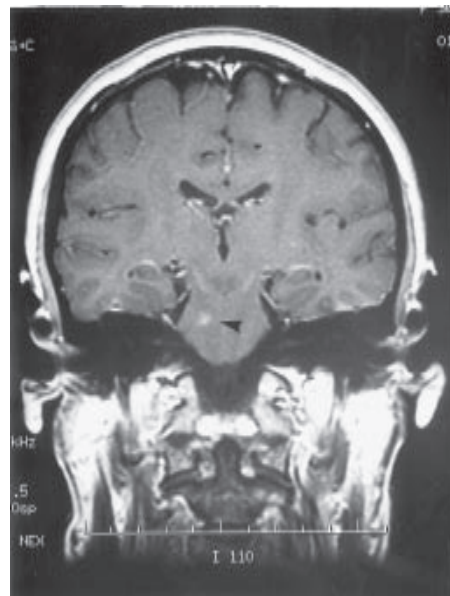


Figure 2.

Figures 1 & 2. 5mm enhancing abnormality in the right pons

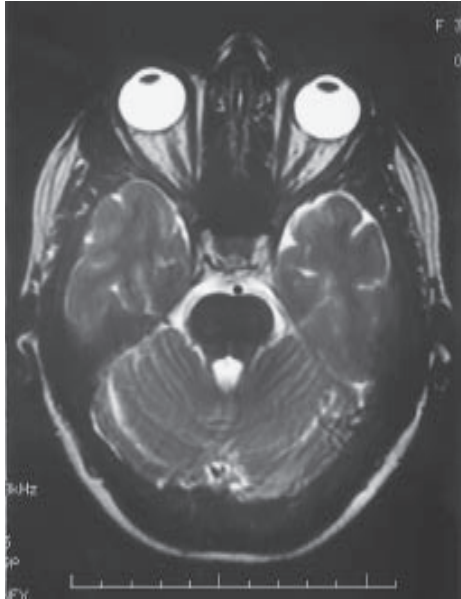


Figure 3.

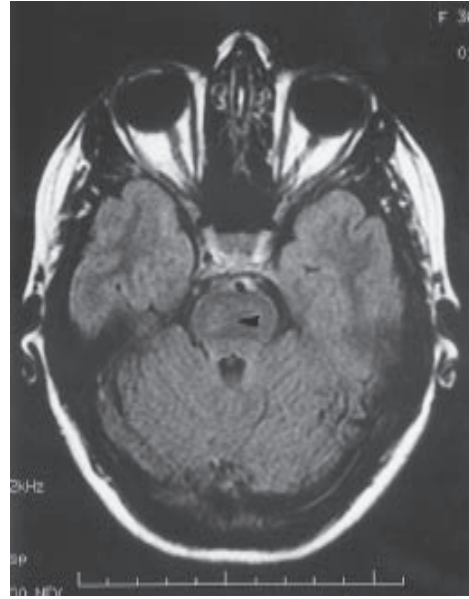


Figure 4.

Figures 3 & 4. FLAIR and T2 axial images are entirely normal in the area of the enhancing abnormality.

REFERENCES

Cohen HCM et al. Angiographically cryptic histologically verified cerebral vascular malformations. *Neurosurgery* 1982; 10:704-714.

Atlas SW. *Magnetic resonance imaging of the brain and spine*. Lippincott-Raven 1996. 2nd edition. pp 521-525.

Continued from page 1. (VIDEO SYSTEM)

The technical staff at North Shore Magnetic Imaging Center has noticed great results with the video system! Patients have commented how relaxed they become during the examination. The scan time on the open MRI is lengthier because of the nature of the equipment, so having the option of watching a video has been a great stress reducer for many patients.

Noise level is also lessened while using the video system. A patient needs to wear a head set to hear the audio portion of the video tape. This head set blocks out over 30 decibels of the gradient noise of the scanner.

The video system also helps pediatric patients complete the scan with ease.

North Shore Magnetic Imaging Center has a variety of video selections for you to choose from or you can bring your own favorites from home.

PATIENT REGISTRATION

The registration process at North Shore Magnetic Imaging Center has become streamlined for patients. Staff at the Center worked diligently to consolidate all pertinent patient registration forms into a few condensed ones. Billing information is now pre-printed before a patient arrives. The patient reviews the information for any corrections and signs. Also, authorization for the release of the MRI report is printed with the name of the referring physician and primary physician. The patient can make any additions, then sign the release. The consent for the MRI and medical history forms are on one sheet.

The consolidation of the registration paperwork is a direct result of listening to our patients. We can appreciate how paperwork can be overwhelming for some patients, however, it is necessary for accurate medical record keeping.

We have heard a positive response from patients since the registration process has become a bit easier.

CENTER WEB SITE

North Shore Magnetic Imaging Center's web site, www.nsmic.org, is a valuable source of information for you, your staff and your patients. Topics on the web site include: "Directions to the Center"; "What is an MRI?"; "How to Prepare for an MRI"; "Patient Services"; "About the Staff"; "Insurance and Billing"; and "Services for Referring Physicians". The Center's quarterly newsletter is also posted on the site, as well as various interesting case studies. Photographs of the equipment and the facility can be downloaded to view and help relieve the "fear of the unknown" for patients. Please visit the Center's website at www.nsmic.org to gain more information about North Shore Magnetic Imaging Center.

NORTH SHORE MAGNETIC IMAGING CENTER

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68 Prospect Street

Peabody, MA 01960

1-800-540-8960 / 978-532-8960

Fax: 978-532-0633 Billing: 978-532-9325

- ← Conventional and open MRI systems
- ← Day, evening and weekend appointments available
- ← Accredited by the American College of Radiology
- ← Transportation program for eligible patients
- ← Radiologists on site for consultation
- ← Video system for patients scheduled on open MRI
- ← Pediatric and hospital patient capabilities
- ← Quarterly newsletter for referring physicians
- ← Center website at www.nsmic.org
- ← Plenty of free parking
- ← Billing for technical component of MRI scan done on premises
- ← Wide variety of insurances accepted

DIRECTIONS

FROM ROUTE 128: Take exit 25B (Middleton) to Rte. 114.
At the 4th set of lights, take a left up Prospect Street. The Center
is the 2nd building on the right, halfway up the hill.

FROM ROUTE 1: Take the exit for Route 114/Peabody.
After 1.9 miles, take a right up Prospect Street. We are the
2nd building on the right, halfway up the hill.