

**From:** Padmanabhan, Bharanidharan  
**Sent:** Monday, July 19, 2010 5:11 PM  
**To:** Chang, Arthur  
**Subject:** RE: need to schedule a meeting with you

dear dr chang,  
many thanks for your email and addendum.  
i would still welcome a chance to sit with you in person and go over the scans visually.  
please let me know when you are at the whidden next and i shall come over to the reading room.  
regards,  
bharani

---

**From:** Chang, Arthur  
**Sent:** Monday, July 19, 2010 4:46 PM  
**To:** Padmanabhan, Bharanidharan  
**Subject:** RE: need to schedule a meeting with you

Dear Dr. Padmandbhan,  
I did review the MRI and I agree with your findings and conclusion of MS. Looking at that FLAIR axials, it looks typical for nonspecific white matter change which we so commonly see. I wan't even thinking MS as the patient was an older male. And with the history of psychosis/confusion, we normally don't do a sagital FLAIR unless requested. **I don't specifically remember seeing the sagital FLAIR**, where there is abnormal signal in the corpus collosum, **which I must have missed**, which I agree is very specific for MS. **I do apoligize**. I am glad that the sagital FLAIR was done which really nails the diagnosis. Thanks for your inquiry. I will make an addendum. You are still welcome to page me.

Dr. Chang

---

**From:** Padmanabhan, Bharanidharan  
**Sent:** Friday, July 16, 2010 9:48 AM  
**To:** Chang, Arthur  
**Subject:** need to schedule a meeting with you

dear Dr Chang,  
greetings!

my name is bharani and i am a neurologist at the whidden campus.  
i would welcome an opportunity to sit with you one day when you are  
reading images at the whidden and go over this patient's brain mri.

below i have pasted in both your official report and my own.  
please do tell me when you will be able to meet with me.  
best wishes!  
bharani

Department of Diagnostic Radiology

PATIENT: AW

DOB:

AGE: 64

SEX: M

ACCT#:

LOCATION: WHMRI

UNIT#:

STATUS: REG

REF ORD PHY: MARIE O GIRAULT NP

Exam Date: 06/23/10

Exam Status: Signed

Exam: MRI BRAIN NON CONTRAST

Reason for Exam: Psychotic\H\

Indication: Psychotic

Comparison: None available

Technique: MR images of the brain were obtained according to standard department  
protocol without contrast. No IV contrast was used.

Findings: There is **mild T2 hyperintensity** in the periventricular white matter **which is nonspecific**, but **probably related to chronic small vessel ischemic disease**. There is a **small oval-shaped old lacunar infarct in the periventricular white matter adjacent to the right frontal horn and a tiny old lacunar infarct in the left centrum semiovale**. No evidence of intracranial hemorrhage, mass-effect or midline shift. There is no diffusion restriction to suggest infarct. The ventricles are normal in size. There is mild mucosal thickening of the left maxillary sinus. The calvarium and mastoids are unremarkable. The soft tissues are normal.

**Impression: No acute intracranial abnormality. Likely chronic small vessel ischemic disease with tiny old lacunar infarcts as described above.**

Dictated By: ARTHUR C. CHANG MD

Reviewed and Electronically Signed By: ARTHUR C. CHANG, MD

## My read of the very same MRI

I have gone over his MRI with him and his sister frame by frame.

Contrary to the official radiology report, his MRI is highly abnormal.

Specifically going through the **all-important Sagittal FLAIR sequence**, the first thing that jumps out is the high degree of **atrophy** that he has already at this age.

Mr W also has numerous widespread bright hyperintense T2 lesions both periventricularly and juxtacortically. The periventricular hyperintensities start at slice #6 on series 9. Slice #7 shows lesions in the white matter; 1 in the deep white matter, 1 in the right occipital junction, and 1 fairly large lesion smack in the middle of his frontal lobe. He has a very large Dawson's finger/conical lesion with evident demyelination in the middle at slice #9 coming off the atrium of his lateral ventricle along with juxtacortical lesion. **Slice #10 shows an almost 2 cm long Dawson's finger** stretching up into the cortex in the classic radial pattern, along with numerous other lesions and other slices; **all of which are distributed in a very highly specific pattern**. He clearly has T2 bright lesions directly involving his **U-fibres**.

This is seen in both hemispheres. For example, **slice #20 on series 9 shows a very large, very bright hyperintense T2 lesion in the deep white matter, which actually continues on through 5 separate slices**.

On the sagittal T1 scan the **demyelination** around the atrium of the ventricle is apparent, along with **severe thinning of the corpus callosum**, especially along the middle third, which naturally fits with the severe atrophy that is also evident in the whole brain.

The lesion distribution pattern and appearance is **very highly specific**, unmistakable and consistent only with a diagnosis of multiple sclerosis.

The literature is very clear that this degree of involvement of the corpus callosum, long Dawson's fingers, heavy involvement of U-fibres and clear T1 signal loss in the middle of an inflammatory T2 lesion is pathognomonic for multiple sclerosis and not for nonspecific minimal small vessel disease.

It also has been shown to not bode well for the patient in the future in terms of disability.

Even on the Axial T2 FLAIRs, series 5 slice #15 for example, the involvement of the anterior corpus callosum is clearly evident.