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██████████ Walker

DOB: ██████████

Dr. Roberto Mixco

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## MRI OF BRAIN WITHOUT AND WITH A PARAMAGNETIC CONTRAST AGENT

### INDICATION FOR SCAN

Possible MS.

### TECHNIQUE

An ultra-high resolution MRI scan of the brain was performed on the new GE short bore whole body 3-Tesla Excite MRI system using T1 FLAIR, T1 weighted spin echo pulse sequences, T2 FSE and T2 FLAIR, as well as a diffusion-weighted (including ADC map) axial pulse sequence. In addition, ultra thin section sagittal FLAIR images through the corpus callosum were obtained. After intravenous injection of Gadolinium DTPA, a three-dimensional T1-weighted volume sequence was obtained with 1 mm slice thickness.

### FINDINGS

Comparison is made to previous MRI of the brain dated 11-30-04 from South Central Kentucky Open MRI.

The ventricles, cortical sulci, and basilar cisterns are within normal limits. However there are extensive white matter lesions supratentorially and infratentorially. Specifically supratentorially there are a large number of lesions in the periventricular white matter, oriented in a perpendicular fashion with the lateral ventricles. Extensive lesions are also noted within centrum semiovale bilaterally and to a lesser degree subcortical regions of cerebral hemispheres bilaterally. Extensive lesions are noted involving the corpus callosum as well, especially body. There are also numerous infratentorial lesions, and specifically these are present within the right cerebellar hemisphere, right cerebellar hemisphere near junction with right middle cerebellar peduncle, multiple lesions within the right pons, a lesion within the left tectum, a lesion within the left inferior cerebellar peduncle. After the administration of intravenous Gadolinium there is pathologic enhancement of numerous lesions. The lesions that enhance are present within the right cerebellar hemisphere, right pons, left tectum, and multiple lesions are noted within white matter throughout cerebral hemispheres bilaterally. The largest of these is present within the left anterior centrum semiovale, with this ring enhancing lesion measuring approximately 6 mm in diameter. These findings are consistent with demyelinating disease. There is no mass effect or midline shift as a result. There are no areas of intra or extraaxial hemorrhage. There is no restricted diffusion. Paranasal sinuses and mastoid air cells are clear and nasopharynx appears normal.

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