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**Southwestern Neuroradiological Society: 14th  
Annual Meeting, October 25-27, 1990, Sarasota,  
FL**

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*AJNR Am J Neuroradiol* 1991, 12 (3) 576-577

<http://www.ajnr.org/content/12/3/576.citation>

This information is current as  
of April 10, 2024.

## Southwestern Neuroradiological Society: 14th Annual Meeting, October 25–27, 1990, Sarasota, FL

Ronald G. Quisling<sup>1</sup>

### Spine

Powell Williams described a series of patients with acute symptoms (back pain) in whom the only MR findings were Schmorl node defects in the lumbar vertebral bodies and end plates. The evolution from acute edema (T2-weighted images) to fat-replaced marrow corresponded with relief of symptoms. Frank Earnest described a series of patients who had pathologic changes in the marrow space. He showed the adjunctive value of fat-suppressed pulse sequences in distinguishing pathologic lesions from degenerative lesions, lesions caused by radiation therapy, and posttraumatic lesions (where fatty marrow accumulates) and the use of such sequences in a range of pathologic lesions of marrow (metastatic disease, hyperplastic marrow state, myeloproliferative disease). The fat-suppressed images are visually less appealing but do increase conspicuity of lesions evident on gadolinium-enhanced T1-weighted MR images.

Fred Vines presented data from a level I trauma center illustrating the value of adding 30° oblique films to the routine three-film series and compared the supplemented series with the traditional five-film set, which includes 45° oblique films. The 30° oblique films offered improved resolution of vertebral arch fractures over both the three-film and the standard five-film sets. This was especially true in the lower cervical and upper thoracic area. The benefit of the 30° oblique films was to obviate routine CT for screening the cervicothoracic junction.

### Interventional Neuroradiology

Ronald Quisling described a series of patients who had either WADA testing or intracerebral embolotherapy who had angiographic evaluations both before and immediately after intraarterial injections of Brevital (sodium methohexital). These studies revealed no evidence of vasospasm, and none of the patients had seizures. Brevital had significant advantages over Amytal (amobarbital) in provocative testing before embolotherapy because it provoked acute neurologic deficits in normally perfused regions at low doses (1–2 mg). The deficits were of short duration (less than 5 min) and created little drowsiness in the patient.

Susan Peterman and Samuel Feaster (in separate presentations) shared their experience with using temporary carotid occlusion during provocative testing before carotid sacrifice. Dr. Peterman illustrated the value of Ceretec in showing diminished flow after temporary (15 min) occlusion. Dr. Feas-

ter, however, suggested that similar information could be achieved by using transcranial sonography in conjunction with transient external compression of the carotid artery. Of note, Dr. Peterman found that one (20%) of five patients who had normal results on carotid provocative testing later had cerebral infarction after carotid sacrifice. The value of such testing remains equivocal.

Michael Brothers described a series of patients who had angioplasty of intracerebral arteries that were in severe vasospasm. He showed that dilatation of A1/A2 and M1/M2 vessel segments was possible. He found angiographic evidence of increased cross-sectional luminal diameter of proximal arteries, and the procedure provided stabilization of or arrested symptomatic decline in most patients. In addition, one patient had improvement in vasospasm-related symptoms after angioplasty.

Robert Ferguson presented a state-of-the-art lecture in which he reviewed several aspects of interventional neuroradiology. He indicated that transthoracic wire-coil embolotherapy continues to offer a means of stabilization and palliation of two forms of galenic fistulae (choroidal and deep types). Jeffrey Landman described three patients with choroidal-type galenic fistulae who required both transthoracic and wire-coil occlusion of the choroidal artery for control of symptoms.

Dr. Ferguson, in a separate talk, discussed the use of ethanol in controlling the growth of meningiomas. Progressive decrease in the size of basilar meningiomas was observed, as was loss of contrast enhancement on MR.

Wayne Cail reviewed the use of a gamma knife for treating pial arteriovenous malformations. The results were 33% cure at 1 year and 85% at 2 years in patients in whom the entire nidus was incorporated within the field of radiation. The findings were similar to those in the Linac experience.

### MR Technique

Frank Eggers presented data on the prevalence (167 patients) of metallic foreign bodies identified during routine screening of more than 9000 patients who had MR imaging. Two cases were not detected before the study and were scanned. These patients experienced a "tugging sensation" but had no additional problems. Polling the audience revealed roughly equal numbers who did screening with plain films vs orbital CT.

James Scatliff provided an entertaining explanation of the etymological origins of many of the common neuroanatomic terms used in MR.

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### MR Imaging: Comparative Evaluations

Lynn Nadal reported the value of phase-shift imaging in showing persistent flow in vascular spaces. It was particularly useful for evaluation of venocclusive disease and vascular malformation. Lower limits of blood-flow detection (in vitro) were 0.5 cm/sec in the Y gradient (phase) direction and 2.5 cm/sec in the X gradient (readout) direction.

The value of contrast-enhanced MR in the detection of cerebral metastases was presented by Pat Hudgins. A comparative study of enhanced MR vs double-dose delayed CT and unenhanced MR showed a 37% increased positivity rate for enhanced MR. Because no false-negative cases occurred in the enhanced MR group, the value of double-dose delayed CT or unenhanced MR as screening tools is diminished significantly.

James Scatliff presented preliminary results of his study of MR (phosphorus) spectroscopic changes with glioblastoma before and after photodynamic treatment. A reduction in the rate of phosphorus monoesters/phosphocreatine levels was observed after treatment, indicating significant cellular effect with the treatment protocol.

### Neoplasia

Tom Dina described a series of positive-HIV patients who had either toxoplasmosis or lymphoma. The multiplicity and CT appearance of the lesions caused by toxoplasmosis and lymphoma were similar. However, lymphoma occurred in the immediate periventricular region in 40% of the cases while none of the lesions in the toxoplasmosis cases was located there.

John McDonnal described a series of patients with recurrent medulloblastoma in the anterior fossa. This is a common

site of recurrence because of the face-down positioning of the patient during surgery and the collimation of the beam during radiation therapy in an attempt to spare the visual apparatus.

The dominant role of contrast-enhanced MR in the imaging of head and neck cancer was presented by Patricia Hudgins. Her findings suggested a prominent role for MR over CT in carcinomas of the upper aerodigestive tract, in particular, the tongue, floor of the mouth, and paranasal sinuses. Comments from the audience suggested that this was not a uniform experience and that CT still plays a prominent role in the evaluation of such lesions.

### Degenerative and Demyelinating Disease

Reed Murtaugh presented his preliminary findings from part of a national study of the relationship between multiple sclerosis and acute onset of neuritis. Of those patients who had acute optic neuritis, more than 40% already had evidence of deep white matter plaques. Michael Currie described evidence of reversal of gray/white matter density on unenhanced CT in patients less than 3 years old who had severe hypoxia. D. Wiener described patients who had fractures of the base of the skull and air in the temporomandibular joint space. In a small but significant percentage this was the only CT finding on the initial screening examination. Robert Hutto presented data from a series of postmortem MR evaluations of brains of patients with Alzheimer disease. Most of these brains had little evidence of the microinfarction characteristic of a multiple infarction group.

The 15th annual meeting of the Southeastern Neuroradiological Society will be held at the Kingsmill Resort, Williamsburg, VA, October 2-6, 1991.

interventional neuroradiology procedures and disorders, which could allow easier cross-sharing of various results, was presented by Barnwell. He offers to provide this computer program to anyone who writes to him at the Neuroradiology Section at the University of California, San Francisco.

Measurement of cerebral blood flow by using Doppler sonography was shown by Hunter. She suggested that this

can be adapted intravascularly because Doppler sizes and catheters are becoming smaller, down to 3 French in size.

The meeting closed looking forward to the First Congress of the World Federation of Interventional and Therapeutic Neuroradiology in October 1991 in Zurich and to the next meeting of the Working Group in Interventional Neuroradiology in January 1992 in Val d'Isère.

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## Erratum

In the summary of the 14th annual meeting of the Southeastern Neuroradiological Society (*AJNR* 1991; 12:576–577), a misprint in the article's title caused the Society to be incorrectly listed as the Southwestern Neuroradiological Society. The Editor sincerely apologizes to the officers and members of the Southeastern Neuroradiological Society for this oversight.