# Annotated bibliography.

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# Annotated Bibliography

Nolan Altman, James A. Brunberg, Allen D. Elster, Ajax E. George, David B. Hackney, Robert B. Lufkin, Jeffrey S. Ross, Joel D. Swartz, Jane L. Weissman, and Samuel M. Wolpert

## Cerebrospinal Fluid Dynamics

Gideon P, Thomsen C, Stahlberg F, Henriksen O. **Cerebrospinal fluid production and dynamics in normal aging: a MRI phase-mapping study.** *Acta Neurol Scand* 1994;89: 362–366.

Using magnetic resonance (MR) phase mapping, the authors found that the calculated mean supratentorial cerebrospinal fluid production was 900 to 1000 mL/24 h, approximately double the rate previously measured by invasive methods.□SMW

## Degenerative and Metabolic Disease and Aging

Alanen AM, Falck B, Kalimo H, Komu ME, Sonninen VH. **Ultrasound, computed tomography and magnetic resonance imaging in myopathies: correlations with electromyography and histopathology.** *Acta Neurol Scand* 1994; 89:336–346.

In 33 patients with myopathies, all three imaging modalities (ultrasound, computed tomography [CT], and MR) corresponded well with electromyography and histopathologic findings and were useful in defining the extent and distribution of muscle involvement. None of the modalities provided specific diagnostic details.□SMW

Roh JK, Lee TG, Wie BA, Lee SB, Park SH, Chang KH. **Initial and follow-up brain MRI findings and correlation with the clinical course in Wilson's disease.** *Neurology* 1994;44:1064–1068.

Abnormal high-signal-intensity lesions are seen most often in the thalami and less often in the brain stem and basal ganglia in patients with Wilson's disease. In a series of 25 patients with Wilson's disease, the authors found that after treatment with D-penicillamine, both the high signal changes and the neurologic symptoms improved in the majority of patients.□SMW

Blatt DR, Friedman WA, Bova FJ, Theele DP, Mickle JP. **Temporal characteristics of radiosurgical lesions in an animal model.** *J Neurosurg* 1994;80:1046–1055.

This animal model shows the correlation between vascular proliferation, radionecrosis, and MR enhancement characteristics in a cat model of radiation injury studied over a 63-week period.□ADE

## Interventional Neuroradiology

Giller CA, Mathews D, Walker B, Purdy P, Roseland AM. **Prediction of tolerance of carotid artery occlusion using transcranial Doppler ultrasound.** *J Neurosurg* 1994;81: 15–19.

Can transcranial Doppler predict or replace balloon test occlusions of the carotid artery? This paper suggests the answer may be yes. If intracerebral flow velocities decrease by less than 65% during manual compression, there is a high likelihood that the patient also will tolerate balloon occlusion.□ADE

Touho H, Ohnishi H, Karasawa J, Furuoka N, Komatsu T. **Percutaneous transluminal angioplasty for acute stroke due to stenosis of major cerebral vessels: report of two cases.** *Surg Neurol* 1994;41:362–367.

Case reports of two patients with acute ischemic stroke caused by significant stenoses of the middle cerebral and vertebral arteries treated by percutaneous transluminal angioplasty with a Stealth catheter. Both cases show marked improvement in their neurologic states after percutaneous transluminal angioplasty with increased cerebral perfusion on hexamethyl-propyleneamine single-photon emission CT scans. Eight figures, with angiogram, single-photon emission CT, and MR.□JSR

## Ophthalmologic Radiology

Gossman MD, Charonis G, Moser R, Knipee R. **The clinonasal line as a reproducible reference guide for optic canal imaging.** *Am J Ophthalmol* 1994;117:815–816.

The authors recommend that CT scanning parallel to a straight line formed by the superior aspect of the posterior clinoid processes and the tip of the nasal bone will provide optimum evaluation of the optic canals.□JDS

## Pediatric Neuroradiology and Congenital Malformations

Shissias CG, Golnik KC. **Horner's syndrome after tonsillectomy.** *Am J Ophthalmol* 1994;117:812–813.

Horner syndrome developed in a 9-year-old boy after tonsillectomy. Cocaine and hydroxyamphetamine testing revealed intact postganglionic axons, suggesting a defect at the level of the superior cervical ganglion. The authors caution that the superior cervical ganglion lies only 1.5 cm behind the palatine tonsil. No images.□JDS

From Miami Children's Hospital (N.A.); University Hospital, Ann Arbor, Mich (J.A.B.); Bowman Gray School of Medicine, Winston-Salem, NC (A.D.E.); NYU Medical Center, New York (A.E.G.); Hospital of the University of Pennsylvania, Philadelphia (D.B.H.); UCLA School of Medicine, Los Angeles (R.B.L.); The Cleveland Clinic Foundation (J.S.R.); The Germantown Hospital and Medical Center, Philadelphia (J.D.S.); University of Pittsburgh School of Medicine (J.L.W.); and New England Medical Center Hospital, Boston (S.M.W.).

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Schaefer GB, Bodensteiner JB, Thompson JN Jr. **Subtle anomalies of the septum pellucidum and neurodevelopmental deficits.** *Dev Med Child Neurol* 1994;36:554–559.

The relationship of absent septum pellucidum to other congenital structural alterations is well recognized. The authors of this manuscript focus, however, on clinical and structural correlates of wide cavum septum pellucidum (>1 cm transverse dimension) and cavum septum pellucidum (<1 cm), postulating that such minor structural variants reflect other abnormalities of early embryologic development. Normal configuration of the septum pellucidum on MR and sonographic imaging is briefly discussed.□JAB

Kesslak JP, Nagata SF, Lott I, Nalcioglu O. **Magnetic resonance imaging analysis of age-related changes in the brains of individuals with Down's syndrome.** *Neurology* 1994;44:1039–1045.

Patients with Down syndrome have significantly larger parahippocampal gyri and smaller hippocampi and neocortices relative to age-matched control subjects as measured on MR scans. These differences were seen in 13 patients.□SMW

Huang PP, Constantini S. **"Acquired" Chiari I malformation.** *J Neurosurg* 1994;80:1099–1102.

A case report showing serial MR images of a child seen at ages 2 and 3 years who developed tonsillar herniation in the interval.□ADE

## Phakomatoses

Wells GB, Lasner TM, Yousem DM, Zager EL. **Lhermitte-Duclos disease and Cowden's syndrome in an adolescent patient.** *J Neurosurg* 1994;81:133–136.

Since we first described the association of Lhermitte-Duclos disease and Cowden phakomatosis, numerous additional cases have surfaced, including this one. Because Lhermitte-Duclos disease is such an "Aunt Minnie" for neuroradiologists, they should be aware of this association.□ADE

Rizzo JF, Lessell S. **Cerebrovascular abnormalities in neurofibromatosis type 1.** *Neurology* 1994;44:1000–1002.

The cerebral arteries (like the renal arteries) can develop stenoses and aneurysms in patients with neurofibromatosis type 1. This review discusses a patient with two "kissing" anterior communicating artery aneurysms and, seen on angiography, right internal carotid aneurysm and an occlusion of the left internal carotid artery.□SMW

## Sella Turcica

Harrison MJ, Morgello S, Post KD. **Epithelial cystic lesions of the sellar and parasellar region: a continuum of ectodermal derivatives?** *J Neurosurg* 1994;80:1018–1025.

A good review of the imaging and pathologic findings in parasellar epithelial lesions, including Rathke cleft cysts, epithelial cysts, epidermoid cysts, dermoid cysts, and craniopharyngioma. The authors suggest that these tumors represent a continuum of ectodermally derived cystic epithelial lesions.□ADE

## Stroke

Yang G-Y, Betz AL, Chenevert TL, Brunberg JA, Hoff JT. **Experimental intracerebral hemorrhage: relationship between brain edema, blood flow, and blood-brain barrier permeability in rats.** *J Neurosurg* 1994;81:93–102.

A good laboratory investigation concerning the factors determining the degree of cerebral edema and blood-brain barrier disruption accompanying cerebral hemorrhage.□ADE

## Vascular Lesions and Malformations

Canavero S, Pagni CA, Duca S, Bradac GB. **Spinal intramedullary cavernous angiomas: a literature meta-analysis.** *Surg Neurol* 1994;41:381–388.

The authors reviewed reports of 57 intramedullary spinal cavernous angiomas, which included cases from the literature and one of their own patients. Seventy percent were in women. Mean size at diagnosis was 1.7 cm. Duration of history was less than 5 years in 80% of the women. Repeated cycles of bleeding were typical, with the interval close to 40 months between first and second episodes. The authors conclude that surgery should not be a necessary first option, because there is frequent recovery from the first bleeding episode.□JSR

Kikuchi K, Kowada M, Sasajima H. **Vascular malformations of the brain in hereditary hemorrhagic telangiectasia (Rendu-Osler-Weber disease).** *Surg Neurol* 1994;41:374–380.

Six patients had vascular malformations with hereditary hemorrhagic telangiectasia. Two had arteriovenous fistulas, three arteriovenous malformations, and one had multiple arteriovenous malformations with arteriovenous fistulas. Although pulmonary arteriovenous fistula has been reported in more than 23% of these patients, vascular malformations of the brain have not been frequently documented in the literature. Six figures, with CT, MR, and angiographic correlation.□JSR

Awad IA, Magdinec M, Schubert A. **Intracranial hypertension after resection of cerebral arteriovenous malformations: predisposing factors and management strategy.** *Stroke* 1994;25:611–620.

Intractable intracranial hypertension was found after resection of 9 of 32 cerebral arteriovenous malformations. This complication occurred in 15% of arteriovenous malformations 6 cm or less in diameter and in 50% of arteriovenous malformations greater than 6 cm. The authors conclude that intractable hypertension remains a common complication despite preoperative embolization, neuroanesthesia, critical care management, and microsurgical technique. Four figures with angiography, single-photon emission CT, and surgical photography.□JSR

Zabramski JM, Wascher TM, Spetzler RF, et al. **The natural history of familial cavernous malformations: results of an ongoing study.** *J Neurosurg* 1994;80:422–432.

Imaging findings in 59 members of 6 families with the familial form of intracerebral cavernous malformations are reported. Of these 31 had MR evidence of cavernous malformations. During a mean follow-up period of 2.2 years, new lesions appeared in 29% of patients; 10% of lesions showed a change in signal characteristics; and 4% changed significantly in size.□ADE

Klossek J-M, Neau JP, Vandenmarq P, Fontanel JP. **Unilateral lower cranial nerve palsies due to spontaneous internal carotid artery dissection.** *Ann Otol Rhinol Laryngol* 1994;103:413–415.

A 49-year-old patient presented with paralysis of cranial nerves IX, X, XI, XII, and incomplete Horner syndrome. Includes excellent-quality axial CT as well as axial and sagittal MR images. The left carotid angiogram is also included. Compression of the lower cranial nerves is believed to be the mechanism although ischemic segmental infarction of the nerves secondary to compromise of the ascending pharyngeal artery is another possibility. The Horner syndrome results from stretching of the periarterial sympathetic plexus.□JDS

Steinke W, Rautenberg W, Schwartz A, Hennerici M. **Noninvasive monitoring of internal carotid artery dissection.** *Stroke* 1994;25:998–1005.

Forty-eight patients with angiographically confirmed internal carotid artery dissections were followed with sequential duplex Doppler studies. Findings were abnormal in all the patients, most of whom presented with bidirectional high resistance Doppler signal. They showed characteristic features of Doppler spectum, the gray scale echo tomogram and the color Doppler flow, which provided diagnostic clues in the majority of the patients. Authors conclude that Doppler sonography provides early recognition of internal carotid artery dissection and monitoring of its resolution.□JSR

Schievink WI, Mokri B, O'Fallon WM. **Recurrent spontaneous cervical-artery dissection.** *N Engl J Med* 1994;330:393–397.

Of 200 patients with dissection of the extracranial internal carotid or vertebral artery confirmed angiographically, 16 had a recurrence. No recurrence was in the same vessel as the initial dissection; common carotid and renal (!) arteries were included in recurrence data. Fifteen of the 16 recurrences were symptomatic; one was found on follow-up angiography. Other asymptomatic recurrences could have been missed. Older patients were less likely to have a recurrence. The authors do not ponder their data. The reader is left with "so what?"□JLW