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N Altman, R S Boyer, J A Brunberg, A D Elster, A E George, D B Hackney, V M Haughton, R B Lufkin, J S Ross, J D Swartz, J L Weissman and S M Wolpert

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Annotated Bibliography

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

Spine

Bauer HCF. **Posterior decompression and stabilization for spinal metastases: analysis of sixty-seven consecutive patients.** *J Bone Joint Surg* 1997;79:514-522

The authors treated 67 consecutive patients for thoracic or lumbar spinal metastases with epidural compression. Immediate and sustained neurologic recovery was achieved with posterior decompression and stabilization, similar to that obtained after anterior decompression. However, there was less morbidity with this approach. If an anterior approach is considered too demanding, this would be an appropriate approach. Three figures including plain radiography and CT. □J.S.R.

Zdeblick TA, Hughes SS, Riew KD, Bohlman HH. **Failed anterior cervical discectomy and arthrodesis: analysis and treatment of thirty-five patients.** *J Bone Joint Surg* 1997;79:523-532

Thirty-five patients underwent surgery after failure of anterior cervical discectomy and arthrodesis, related to absence of fusion, kyphosis with collapse of the graft, or unrecognized posterior soft tissue injury. For patients with neck pain only, good results were obtained with debridement of the nonunion and repeat arthrodesis. For patients with radicular symptoms, they recommend decompression of osteophytes or fibrous tissue with hemicorpectomy and subsequent arthrodesis. Four figures, plain radiography and CT myelography. □J.S.R.

Ceviz A, Arslan A, Ak HE, İnalöz S. **The effect of urokinase in preventing the formation of epidural fibrosis and/or leptomeningeal arachnoiditis.** *Surg Neurol* 1997;47:124-127

A reduction in the amount of leptomeningeal adhesions was found with application of urokinase after durotomy, in a rat model. There was approximately a 48% decrease in leptomeningeal adhesions with the use of urokinase. No neurotoxic effects from the use of urokinase. □J.S.R.

Weller SJ, Malek AM, Rossitch E Jr. **Cervical spine fractures in the elderly.** *Surg Neurol* 1997;47:274-281

Cervical spine fractures in the elderly are common, representing a quarter of the total number in this series. Falls account for the majority of injuries, with fractures of the atlantoaxial complex predominating. Five combination C-1/C-2 fractures are included. Four figures. □J.S.R.

Davis RA. **A long-term outcome study of 170 surgically treated patients with compressive cervical radiculopathy.** *Surg Neurol* 1996;46:523-533

The long term follow-up (15 years) with patients undergoing the posterior approach for compressive cervical radiculopathy. The authors point out that literature looking at long-term follow-up is meager. Worker's compensation legal claims, postoperative radiculopathy due to hard disk, and persistent paresthesias were factors that had unfavorable outcomes. Hemilaminectomy or laminectomy with lateral foraminotomy were the surgeries these patients underwent. □J.S.R.

Mikawa Y, Yamaoka T, Watanabe R. **Compression of the spinal cord due to destructive spondyloarthropathy of the atlanto-axial joints.** *J Bone Joint Surg* 1996;78:1911-1914

A patient had quadriplegia and dyspnea due to a destructive spondyloarthropathy (hemodialysis spondyloarthropathy) with atlantoaxial dislocation. An interesting CT scan is presented showing calcification of the transverse ligament. □J.S.R.

Stroke

Fisher M. **Progress review: characterizing the target of acute stroke therapy.** *Stroke* 1997;28:866-872

A good review of how to define, to identify, and potentially to treat salvageable ischemic brain tissue and mechanisms contributing to irreversible ischemia. □J.S.R.

Kataoka S, Hori A, Shirakawa T, Hirose G. **Paramedian pontine infarction: neurological/topographical correlation.** *Stroke* 1997;28:809-815

Forty-nine patients with acute paramedian pontine infarcts were evaluated for lesion location on MR, and lesion location was correlated with disability scale scores. Paramedian infarctions are a common type of infarction within the posterior circulation and present with predominant hemiparesis with dysarthria, somatosensory disturbance, and horizontal gaze abnormalities. The upper pontine lesions have a more favorable outcome than the lower pontine lesions because the cortical spinal tract in the upper pontine level is located more laterally. □J.S.R.

From Miami (Fla) Children's Hospital (N.A.), Primary Children's Medical Center, Salt Lake City, Utah (R.S.B.), University Hospital, Ann Arbor, Mich (J.A.B.), Bowman Gray School of Medicine, Winston-Salem, NC (A.D.E.), New York (NY) University Medical Center (A.E.G.), Hospital of the University of Pennsylvania, Philadelphia (D.B.H.), Medical College of Wisconsin, Milwaukee (V.M.H.), University of California at Los Angeles School of Medicine (R.B.L.), the Cleveland (Ohio) Clinic Foundation (J.S.R.), the Germantown Hospital and Medical Center, Philadelphia, Pa (J.D.S.), the University of Pittsburgh (Pa) School of Medicine (J.L.W.), and New England Medical Center Hospital, Boston, Mass (S.M.W.).

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Spener MP. **Transcranial Doppler monitoring and causes of stroke from carotid endarterectomy.** *Stroke* 1997;28:685-691

The authors monitored 500 carotid endarterectomies with transcranial Doppler ultrasound. Complications of the surgery were graded according to severity. Embolism from the surgical site was the main cause of cerebral vascular complications, and 19% of carotid endarterectomy patients demonstrated microemboli. The perioperative stroke rate can be reduced if the surgeons use appropriate measures based on the findings of the transcranial Doppler intraoperative monitoring. □J.S.R.

Temporal Bone

Hara A, Takahashi K, Ito Z, Kusakari J, Kurosaki Y. **Value of fat suppression magnetic resonance imaging in the diagnosis of lipomas of the internal auditory canal.** *Ann Otol Rhinol Laryngol* 1997;106:343-347

Two thoroughly illustrated (excellent quality MR) and analyzed case reports on intracanalicular lipomas. No new information is presented; however, because these lesions are sufficiently rare, this article is of interest to the imaging specialist. □J.D.S.

Stewart K, Kountakis SE, Chang CYJ, Jahrsdoerfer RA. **Magnetic resonance angiography in the evaluation of glomus tympanicum tumors.** *Am J Otolaryngol* 1997;18:116-120

The imaging approach for three patients with vascular retrotympanic masses is discussed. MR angiography is found to be useful for determining the patency of the internal jugular vein, but the value of the reversed saturation pulse is not discussed. Both MR angiographic images show fortuitous internal jugular vein flow. The conclusions about the value of CT are also ambiguous. This paper would have benefited from an imaging specialist as a coauthor. □J.D.S.

Neck and Nasopharynx

Blinder G, Hiller N, Gatt N, Matas M, Shilo S. **Brown tumor in the cricoid cartilage: an unusual manifestation of primary hyperparathyroidism.** *Ann Otol, Rhinol Laryngol* 1997;106:252-253

Two CT images of the same patient show a parathyroid adenoma in the tracheoesophageal groove on the right, as well as an intensely enhancing mass with epicenter in the left side of the cricoid cartilage, representing a Brown tumor. The authors state that this is the first reported case of Brown tumor of the cricoid cartilage. □J.D.S.

Borges A, Torrinha F, Lufkin RB, Abemayor E. **Laryngeal involvement in multiple symmetric lipomatosis: the role of computed tomography in diagnosis.** *Am J Otolaryngol* 1997;18:127-130

Five good-quality CT scans show two patients with pronounced deforming subcutaneous fat as well as fatty infiltration of the paralaryngeal soft tissues. Both patients carry the diagnosis of Madelung disease, a rare lipodystrophy characterized by multiple symmetric fatty infiltrative lesions. Each patient had multiple symptoms, including chronic dysphonia. □J.D.S.

Interventional Neuroradiology

Crawley F, Clifton A, Markus H, Brown MM. **Delayed improvement in carotid artery diameter after carotid angioplasty.** *Stroke* 1997;28:574-579

Twelve patients were evaluated 1 year after percutaneous transluminal angioplasty (PTA), supplemented by ultrasound examinations at 1 and 6 months. Six of the 12 patients showed further improvement in lumen diameter at the 1 year angiographic follow-up. Remodeling of the carotid artery was proved after PTA, with acceptable carotid angioplasty patency rates at 1 year. Stenting might not be necessary unless initial PTA result is less than 20% reduction of stenosis. □J.S.R.

Furlan AJ, Kanoti G. **When is thrombolysis justified in patients with acute ischemic stroke? a bioethical perspective.** *Stroke* 1997;28:214-218

This is a succinct review of the risk-benefit ratio of thrombolysis in acute ischemic stroke. □J.S.R.

Inflammatory Disease

Sharma BS, Khosla VK, Kak VK, et al. **Intracranial fungal granuloma.** *Surg Neurol* 1997;47:489-497

The largest series of intracranial fungal granulomata ever reported in the neurosurgical literature (32 cases). The cases are divided into a rhinocerebral group (22 cases) and a primary intracranial group (10 cases) in which no sinonasal lesion was identified. Mortality was 50%. Meningoencephalitis was the most common cause of death. The classic precepts of otologic surgery apply; namely, extirpate as much of the lesion as possible and complete treatment with appropriate drugs. □J.S.R.

Vascular Lesions and Malformations

Kumon Y, Sakaki S, Kohno K, Ohta S, Ohue S, Miki H. **Three-dimensional imaging for presentation of the causative vessels in patients with hemifacial spasm and trigeminal neuralgia.** *Surg Neurol* 1997;47:178-184

Twenty patients with hemifacial spasm and six with trigeminal neuralgia were evaluated with MR, MR angiography (MRA), and 3-D reconstruction of the data sets. Preoperative spoiled gradient-echo MR images showed the area of compression. The causative vessels were evaluated with MRA. Symptoms were relieved in 18 of 20 patients with hemifacial spasm and all six with trigeminal neuralgia. Six figures. □J.S.R.

Imaging Techniques and Artifacts

Jackson EF, Ginsberg LE, Schomer DF, Leeds NE. **A review of MRI pulse sequences and techniques in neuroimaging.** *Surg Neurol* 1997;47:185-199

Nice, succinct review of the tremendous variety of pulse sequences available for MR imaging, including perfusion and diffusion studies. □J.S.R.

Degenerative and Metabolic Disease and Aging

Krauss JK, Regel JP, Vach W, Jüngling FD, Droste DW, Wakhloo AK. **Flow void of cerebrospinal fluid in idiopathic normal pressure hydrocephalus of the elderly: can it predict outcome after shunting?** *Neurosurgery* 1997; 40:67-74

Among 37 patients with ventriculomegaly and probable normal pressure hydrocephalus, the magnitude of decrease in cerebrospinal fluid signal intensity on T2-weighted images was characterized at seven locations along central cerebrospinal fluid flow pathways before shunt placement. There was no correlation between the presence or degree of flow void and the response to shunt therapy. □J.A.B.

Phakomatoses

Broniscer A, Gajjar A, Bhargava R, et al. **Brain stem involvement in children with neurofibromatosis type 1: role of magnetic resonance imaging and spectroscopy in the distinction from diffuse pontine glioma.** *Neurosurgery* 1997;40:331-338

In patients with diffuse brain stem enlargement associated with neurofibromatosis, proton MR spectra at 1.5 T showed *N*-acetyl-aspartate and the vector sum of choline and creatine/phosphocreatine to be significantly higher-

than in patients with pontine glioma. Midsagittal diameter measured from MR images was lower in the neurofibromatosis type 1 group than in patients with pontine glioma. Differences in other MR parameters were not significant. Implications for treatment are discussed. □J.A.B.

Iatrogenic Disorders

Schiffer J, Gur R, Nisim U, Pollak L. **Symptomatic patients after craniectomy.** *Surg Neurol* 1997;47:231-237

Five cases of "sinking scalp flap" syndrome improved after cranioplasty. Various theories as to why neurologic symptoms occur are explained and a literature review is included. Eleven figures. □J.S.R.

Brain Tumors and Cysts

Salvati M, Cervoini L, Puzzilli F, Bristot R, Delfini R, Gagliardi M. **High-dose radiation-induced meningiomas.** *Surg Neurol* 1997;47:435-442

Ten cases of cerebral meningiomas after high-dose radiation therapy are analyzed with all the cases in the world literature. These meningiomas appear particularly in children, have a female preponderance and a peak frequency in the third decade of life, are frequently atypical, and recur. □J.S.R.

BOOKS RECEIVED

Handbook of Interventional Radiologic Procedures. 2nd ed. By Krishna Kandarpa and John E. Aruny. Philadelphia, Pa: Lippincott-Raven, 508 pp, 1996. \$37.95

Diagnosis of Genitourinary Disease. 2nd ed. By Martin I. Resnick and Robert A. Older. New York, NY: Thieme, 600 pp, 1997. \$149

Neonatal Cerebral Ultrasound. By Janet M. Rennie. Cam-

bridge, England: Cambridge University Press, 242 pp, 1997. \$90

Cerebral Venous Thrombosis. By Marie-Germaine Bousser and Ralph Ross Russell. Philadelphia, Pa: WB Saunders Co, 192 pp, 1997. \$90

Practical Neuroangiography. By Pease Morris. Baltimore, Md: Williams & Wilkins, 408 pp, 1997.

Books, AV programs, and software intended for review should be sent to:

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