Spine


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.


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 with radicular symptoms, they recommend decompresion of the nonunion and repeat arthrodesis. 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. J.S.R.


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.


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.


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.


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.


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.
Temporal Bone


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.D.S.

Interventional Neuroradiology


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.D.S.


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

Inflammatory Disease


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.D.S.

Vascular Lesions and Malformations


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.D.S.

Imaging Techniques and Artifacts


Nice, succinct review of the tremendous variety of pulse sequences available for MR imaging, including perfusion and diffusion studies. J.D.S.
Degenerative and Metabolic Disease and Aging


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


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


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


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


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

Mary Shepelak
AJNR Editorial Office
Department of Radiology
Rush-Presbyterian-St Luke’s Medical Center
1653 W Congress Pkwy
Chicago, IL 60612