



## **Astrocytoma with calvarial erosion.**

R E Osborn and C E Ley

*AJNR Am J Neuroradiol* 1986, 7 (1) 178

<http://www.ajnr.org/content/7/1/178.1.citation>

This information is current as  
of July 3, 2025.

# Correspondence

## Astrocytoma with Calvarial Erosion

A 26-year-old woman was seen with a solid, low-grade astrocytoma with resultant erosion of the calvaria. Although calvarial erosion from gliomas has been reported [1–4], it has not been demonstrated with computed tomography (CT). Our patient had an 8 month history of tinnitus, visual field defects, headaches, and one episode of seizure activity. Skull radiographs and CT demonstrated a poorly marginated, 5 cm bony erosion of the left lateral surface of the frontal bone (fig. 1). A mass immediately adjacent to the area of erosion was also evident with CT. The mass produced cerebral edema that resulted in effacement and contralateral shift of the lateral ventricles. The erosion was from pressure atrophy of the inner table and thinning of the diploë.

Calvarial erosion caused by a superficially located glioma is rare [5]. Additional intracranial masses that may produce calvarial erosion include meningioma [1, 3, 5], intracranial cysts [1], dural metastases [3], chronic juvenile subdural hematomas [2, 3], and anomalous development of the cisterna magna [2, 3]. The CT appearance of the frontal lobe mass in our case was not characteristic of either meningioma or intracranial cyst [6]. Metastatic neoplasm was a consideration but was unlikely because of the patient's age. The CT findings

in our case are most suggestive of calvarial erosion from glioma.

Robin E. Osborn

Oklahoma Osteopathic Hospital

Tulsa, OK 74127

Present address: University of Chicago

Chicago, IL 60637

Carl E. Ley

Naval Hospital

San Diego, CA 92134

## REFERENCES

1. Thomas JE, Baker HL. Assessment of roentgenographic lucencies of the skull: a systematic approach. *Neurology* 1975;25:99–106
2. Taveras JM, Wood EH. The skull. In: *Diagnostic neuroradiology*. Baltimore: Williams & Wilkins, 1976:1–230
3. Ethier R. Thickness and texture. In: Newton TH, Potts DG, eds. *Radiology of the skull and brain*. St. Louis: Mosby, 1971:154–215
4. Harwood-Nash DC, Fitz CR. Brain neoplasms. In: *Neuroradiology in Infants and Children*. St. Louis: Mosby, 1976:668–778
5. Lane B. Erosions of the skull. *Radiol Clin North Am* 1974; 2:257–282
6. Grossman CB, Masdeu JC, Maravilla KR, Gonzalez CF. Intracranial neoplasms of the adult. In: Gonzalez CF, Grossman CB, Masdeu JC, eds. *Head and spine imaging*. New York: Wiley, 1984:225–281

## Spinal Subarachnoid Clot Detected by CT

We studied a case of subarachnoid hematoma after traumatic lumbar puncture [1–4] in a patient with pneumococcal meningitis. This 20-year-old woman had a history of Still disease and had recently developed visual hallucinations. Neurologic examination was normal. The patient was on aspirin, 13 tablets a day, and prednisone, 25 mg four times a day. Lumbar puncture, arthrocentesis, and blood culture were all positive for pneumococcus. After the last lumbar puncture, the patient developed urinary retention as well as fecal incontinence. Because of these new symptoms, CT of the spine was performed and showed areas of increased density in the dural sac at the level of the cauda equina (fig. 1A). In view of the patient's history of multiple traumatic spinal taps, a diagnosis of spinal subarachnoid hematoma was made. Metrizamide myelography and subsequent CT showed filling defects in the dural sac (fig. 1B) without evidence of subdural or epidural hematoma. During lumbar puncture for myelography,

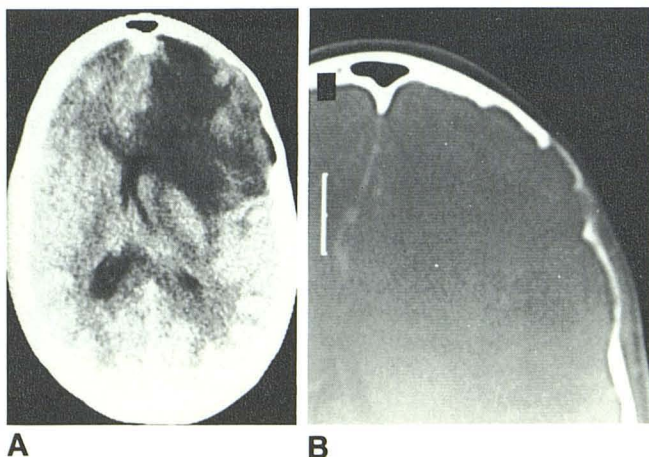


Fig. 1.—A, Large left frontal mass with edema and contralateral shift. B, Associated calvarial erosion was better identified on bone window setting.