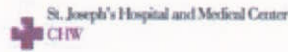


OPTIC APPARATUS MENINGIOMA



Barrow Neurological Institute CyberKnife® Team:

Radiation Oncologist: John Kresl, M.D., Ph.D.

Surgeon: Randal Porter, M.D.

Medical Physicist: Ray Rodebaugh, Ph.D.

Radiation Therapist: Bill Howe, R.T.(T.)

CyberKnife Center: Barrow Neurological Institute
Phoenix, AZ

OPTIC APPARATUS MENINGIOMA

DEMOGRAPHICS

Sex: F
Age: 56
Histology: Meningioma

CLINICAL HISTORY

Referred by: Neurosurgery
Previous Treatment: Resection of an optic nerve meningioma in 1983

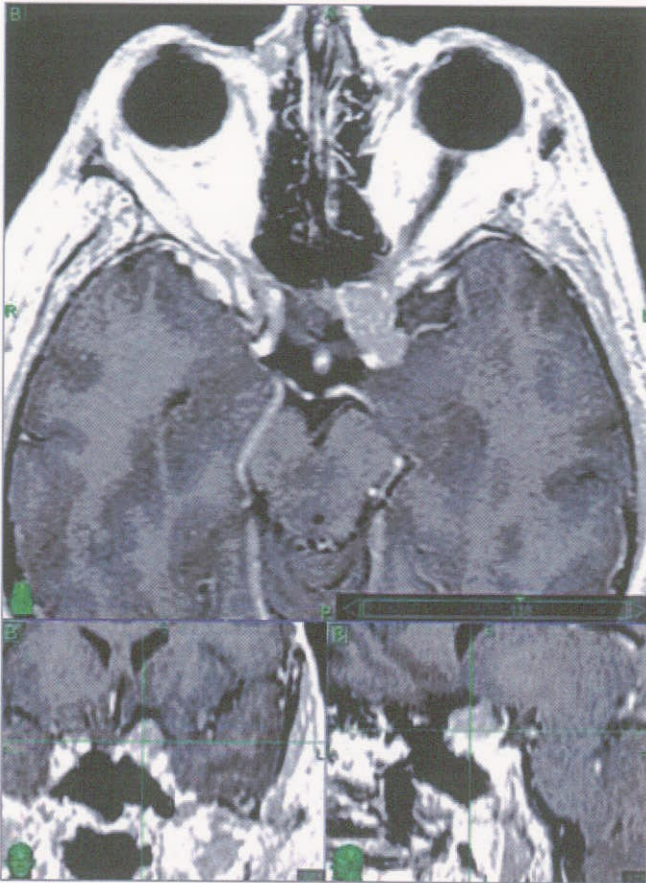
Case History

The patient underwent a left frontal craniotomy with a gross total resection. Ten years later, she lost vision in her left eye due to tumor recurrence. She was treated with a left lateral orbital wall decompression and left medial orbital wall decompression. Her vision did not improve. She was also diagnosed with Graves ophthalmopathy. Her best post-op status was restricted to shadow and light vision.

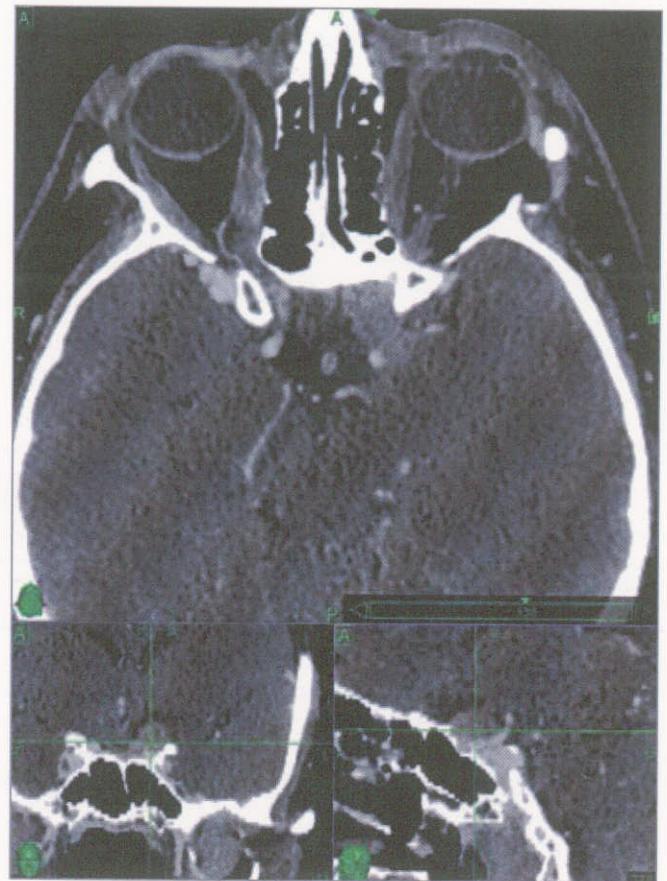
CyberKnife® Treatment Rationale

Because of previous extent of disease, the patient excluded surgery to avoid the surgical complication risk of complete blindness. The left optic nerve would have been in great jeopardy of devascularization from a surgical approach. Surgery was unlikely to improve or restore her visual acuity. There was jeopardy of vision loss to the remaining sighted right eye with the risk of meningioma progression to extend posteriorly and involving the chiasm and other optic apparatus structures.

Treatment with CyberKnife® radiosurgery utilizing a hypofractionated treatment regimen was indicated for maximum local control and to minimize injury to the optic apparatus.^{1,2}



Pretreatment MR data used for tumor identification and image fusion.



Pretreatment CT data used for treatment planning and stereotactic radiosurgical targeting on the CyberKnife System.