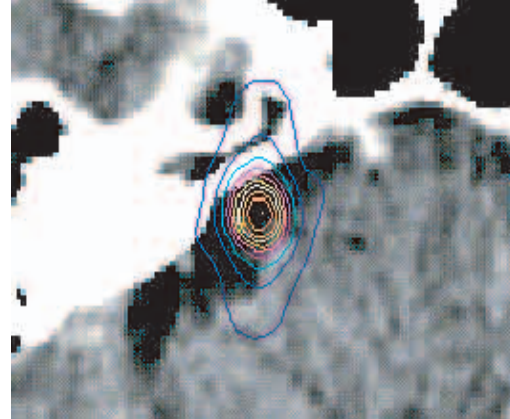
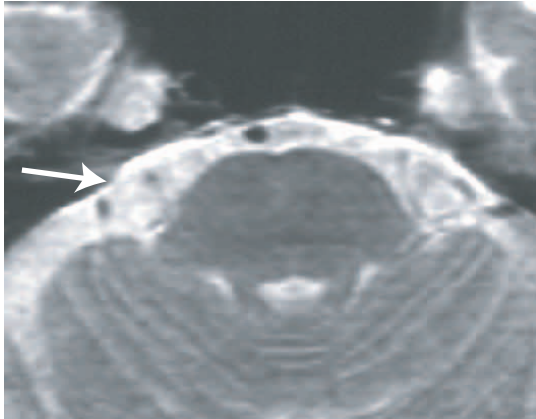


CASE STUDY

Trigeminal Neuralgia

Treatment of right-sided V1, V2 and V3 distribution Trigeminal Neuralgia



Courtesy of M. Davis MD & S. Chenery PhD, Newport Diagnostic Center, Newport Beach, CA USA

BEFORE TREATMENT

TREATMENT PLAN

Patient History

An 88-year-old male presented with a 4-year history of right-sided V1, V2, and V3 trigeminal neuralgia that had not been well-controlled on medications. The patient had developed major side effects, including drowsiness and inability to walk, when on Tegretol as well as headaches and poorly controlled tic pain while on Neurontin. An MRI of the brain showed no vascular loops, enhancing soft tissue masses, or other focal lesions in association with the right-sided trigeminal root entry zone.

CyberKnife Advantage

The patient chose radiosurgery with the CyberKnife having reviewed all other possible alternatives, such as microvascular decompression, glycerol injection, radiofrequency rhizotomy, balloon compression, or radiosurgical treatment with a frame-based system.

Treatment

The patient was treated on the frameless CyberKnife System at Newport Diagnostic Center with a single fraction to a total dose of 80 Gy centered at the root entry zone.

Outcome & Follow-Up

The patient was seen in follow-up at 1, 3, 12 and 18 month intervals. He reported no relief of his pain at the first 3 visits but did note at 12 months that Tylenol, the only medication he was taking for pain, significantly diminished its severity. At 18 months, he reported complete resolution of his tic pain. He has had no other neurological symptoms.

CyberKnife Team



Neurosurgeon:	Farzad Massoudi, M.D.
Radiation Oncologist:	Marshall Davis, M.D.
Medical Physicist:	Stafford Chenery, Ph.D.