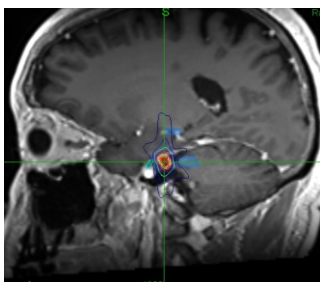
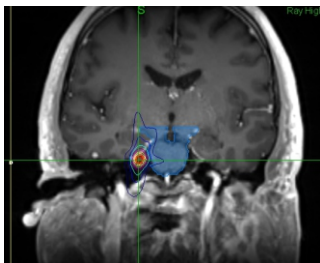


CyberKnife® Stereotactic Radiosurgery for Trigeminal Neuralgia



Trigeminal Neuralgia

Trigeminal Neuralgia (TN) is a severe pain disorder that affects about one in 15,000 people. Type I, or “classical” TN patients suffer episodes of stabbing, electric shock-like facial pain involving the eyes, lips, nose, scalp, forehead, and jaw. The disorder affects the trigeminal or fifth cranial nerve that provides sensation to the face. Patients with atypical facial pain, or Type II TN, may have a different clinical presentation, including constant, burning pain. In multiple sclerosis (MS) patients, TN occurs frequently and precedes the diagnosis of MS in about 15.0% of individuals. Trigeminal Neuralgia tends to be one of the first symptoms of multiple sclerosis for those who experience it.¹

CyberKnife Treatment for Trigeminal Neuralgia

CyberKnife stereotactic radiosurgery (SRS) is commonly used to treat TN. During the CyberKnife treatment procedure, highly focused radiation is delivered for neuromodulation of the trigeminal nerve. While other SRS treatment systems may require a metal frame fixed to the patient’s skull with titanium screws, the CyberKnife does not. CyberKnife uses a highly advanced computer-imaging and a real-time tracking system to compensate for any potential motion during treatment, simultaneously ensuring extreme accuracy in radiation delivery and comfort for the patient during the treatment.

Patient Spotlight

Patient is a 52-year-old male, with a history of multiple sclerosis and prostate cancer who was diagnosed with right-sided TN five years ago. His symptoms have been managed with medications until recently when his pain progressed and he experienced side effects associated with the medications used to treat the TN. After consultation and evaluation, including a discussion of the potential acute and long term side effects, the patient decided to proceed with CyberKnife, given in one fraction for the treatment of his TN symptoms.

CyberKnife Treatment

60 Gy given in one fraction to the right trigeminal nerve using CyberKnife stereotactic radiosurgery treatment.

Post-Treatment

At two-week follow-up appointment, the patient reports he has done very well. He reports that pain is significantly less frequent and he is able to eat, talk, brush his teeth, and touch his face without pain. Overall, he is very pleased with how he is feeling and thankful for the procedure.

TN Treatment at Austin CyberKnife

Treatment plans will depend on several factors, including the exact location of the tumor, stage of the disease, and the age and general health of the patient. Austin CyberKnife, a department of Dell Seton Medical Center at The University of Texas, offers the only CyberKnife program in the greater Austin area.

¹ “Ahmad Fallata, Amber Salter, Tuula Tyry, Gary R. Cutter, and Ruth Ann Marrie (2017) Trigeminal Neuralgia Commonly Precedes the Diagnosis of Multiple Sclerosis. International Journal of MS Care: September/October 2017, Vol. 19, No. 5, pp. 240-246.”

Austin CyberKnife treats several different types of malignant and benign tumors in the brain, spine, lung, liver, pancreas, prostate, and kidney, as well as certain medical conditions like trigeminal neuralgia and arteriovenous malformations. Our center is dedicated to providing patients with the latest cancer treatment technology, and we’re proud of the experience and clinical expertise our physicians and caring staff bring to our patients. Most insurance plans and Medicare are accepted.



A department of Dell Seton Medical Center at The University of Texas

