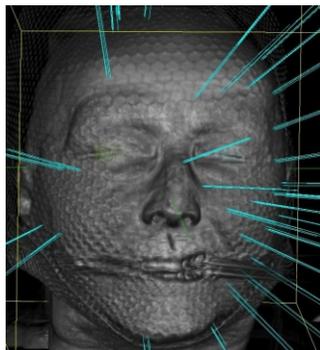
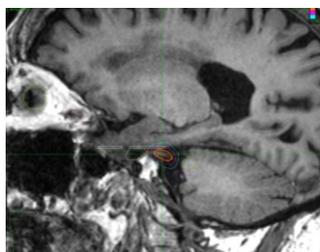


# CyberKnife® Stereotactic Radiosurgery for Trigeminal Neuralgia



CyberKnife, no fixed metal headframe



Treatment plan, right trigeminal nerve

Oklahoma 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.

## Trigeminal Neuralgia

Trigeminal Neuralgia (TN) is a severe pain disorder that affects approximately 12 per 100,000 people per year. Type 1 (TN1), or "Typical" 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. TN is more common in women and patients are typically middle-aged or seniors. Patients with "Atypical" facial pain, or Type 2 (TN2), may have a different clinical presentation, including constant, burning pain.<sup>1</sup>

## 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

An 85-year old patient presented with Typical Trigeminal Neuralgia approximately 2 years ago, with gradually worsening pain affecting primarily division I (forehead, periorbital areas). She initially responded to medical therapy but became gradually refractory over time. Her pain consisted of episodic sharp, stabbing pains but no other focal neurological deficits.

### CyberKnife Treatment

CyberKnife stereotactic radiosurgery was used to treat the right trigeminal nerve, utilizing an optimized plan with 32 nodes and 145 beams, to deliver 75 Gy in one treatment.

### Post-Treatment

Within two weeks of CyberKnife treatment, she became completely pain free. She has no numbness in the face or other focal neurological deficits and she requires no medicines to control her pain.

### TN Treatment at Oklahoma 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. For more information, please call or visit us at 918-949-6676 or [www.OklahomaCK.com](http://www.OklahomaCK.com)

<sup>1</sup> Reference: NINDS, 2019.

