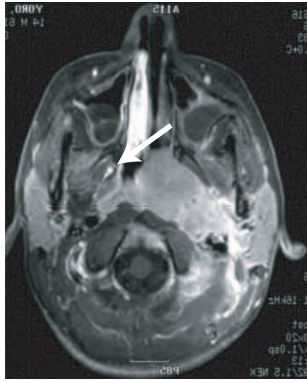


CASE STUDY

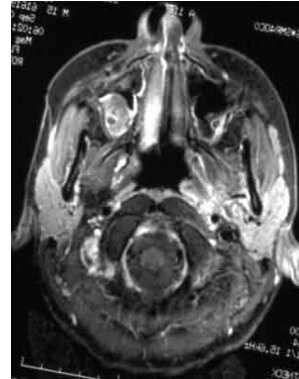
Nasopharynx Carcinoma

Extracranial Treatment of the Right Nasopharynx



Courtesy of T. Guerrero, MD, Stanford University Medical Center

BEFORE TREATMENT



2-YEAR FOLLOW-UP

Patient History

A 14-year-old male with T3 N3B Mx NPC was treated with combined-modality chemo and radiation therapy. Following induction chemotherapy, there was a complete response at the primary site and involved lymph node. The nasopharynx was treated to a dose of 61.2 Gy. Radiosurgical boost was administered one month later.

CyberKnife Advantage

At SUMC, CyberKnife radiosurgery boosts have become the standard of care for NPC. Substituting for brachytherapy implant or framed-based stereotactic treatment, the CyberKnife is frameless, highly conformal and, most importantly, can be used to treat very inferiorly in the head and neck region. It is an ideal radiosurgery system. In the Stanford experience with radiosurgical boosts for NPC, there have been no local recurrences. <sup>1</sup>

Treatment

The patient was treated using an Aquaplast mask for immobilization. A 15.0 mm. collimator was used to treat the tumor volume to a prescribed dose of 10 Gy calculated to the 76% isodose line and with a Dmax of 13 Gy.

Outcome & Follow-Up

Treatment was tolerated without difficulty or any discernible acute effects. At the 2 year follow-up, MRI scan demonstrated no evidence of residual or recurrent neoplasm. The patient continues to "shred" the Santa Cruz surf scene, where he is a full-time high school student.

CyberKnife Team



Radiation Oncologist:	Sarah Donaldson, M.D.
Neurosurgeons:	John Adler, M.D. David P. Martin, M.D.
Medical Physicist:	Jenny Hai, Ph.D.
Radiation Therapist:	Nalani Brown, RTT

Reference

1) Cmelak AJ, Cox RS, Adler JR, Fee WE Jr, Goffinet DR: Radiosurgery for skull base malignancies and nasopharyngeal carcinoma. Int J Radiation Oncol Biol Phys 15;37(5):973-7,1997