

PATIENT HISTORY

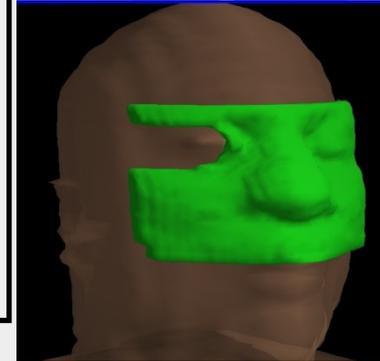
- Recurrent Basal Cell Carcinoma to the nose and right cheek
- Initially excised in 2002
 - Recurred May 2011
 - Re-excised in June 2011
 - Lesion extended into the underlying soft tissue of the right mid nose and right cheek. It was attached to the underlying muscle fascia. Involvement of the muscle and positive margins were suspected.
 - No prior radiation therapy

DOSE PRESCRIPTION

- 6 MV IMRT, 200cGy x 33 to 95% of PTV for total of 6600cGy. Custom bolus and external eye shield included.
 - Custom bolus: 1.0 cm uniform thickness
 - Treatment stopped after 6000cGy due to patient skin reaction
- Note: The original intent was to treat to 6000cGy. But the IMRT plan allowed for the possibility of increasing the dose, if the skin held up



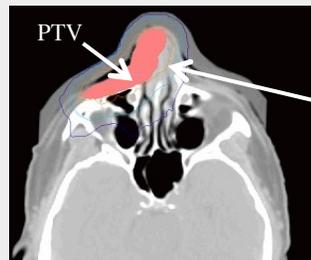
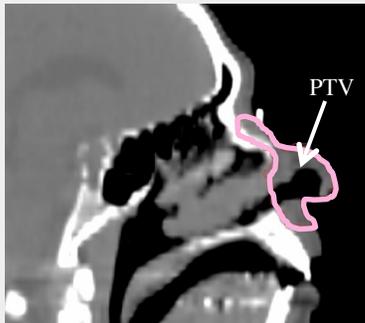
BOLUS 3D VIEW



BOLUS SETUP



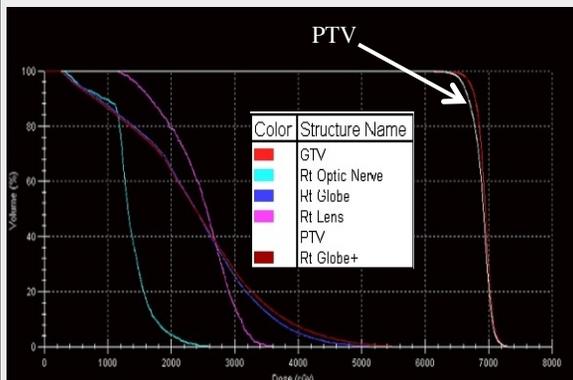
DOSE PLANNING



Color	Dose (cGy)
Orange	6600.0
Blue	4800.0
Dark Blue	3300.0

PATIENT REACTION

- Brisk erythema in the treatment area and a small area of moist desquamation at the right inner canthus after 3600cGy
- Patient on treatment break for 10 days
- Resumed treatment and completed 6000cGy



FOLLOW-UP

- At one month, the patient's skin has healed
- Loss of lower eyelashes
- Slightly increased epiphora in right eye which may have been caused by an underlying condition that was aggravated by the radiation.

SUMMARY

The challenge in treating this patient was to achieve the intended dose while sparing the eye, optic nerve and lens. An enface electron field is the traditional mode of treatment for skin cancers, however, due to the size of the lesion, the proximity of critical structures and the underlying sinus cavities, we were concerned that we would not adequately cover the lesion without unacceptable morbidity. **We chose to treat with IMRT using a Monte Carlo calculation algorithm. The plan required a uniform 1.0 cm bolus to treat the skin surface – one that conforms to the facial structures, was reproducible and maintained its uniformity. The .decimal bolus met each criterion.**