

AbstractID: 13902 Title: Novel Treatment Technique for Conjunctival Lymphoma of the Eye

**Purpose:** This study was designed to develop a new technique to better treat conjunctival lymphoma while limiting dose to the lens. Previous texts have suggested using a “hanging block” approach, for example a lead filled straw suspended in the center of the treatment field. The possibility of using a baby nipple has several advantages, including ease and reproducibility of set-up, safety for the patient (the baby nipple moves with the patient), and an ideal dose distribution due to the shaping and slight attenuation of the radiation beam through the plastic.

**Materials/Methods:** A typical baby bottle nipple (Philips, 3-6 months) was placed in a 4 cm diameter circle Cerrobend cut-out and placed in the 6x6 electron cone. A lead rod, a Cerrobend rod, and spherical tungsten fishing weights were each placed in the tip of the bottle nipple and measurements were made with radiochromic film in the sagittal and coronal planes for 6 and 9 MeV beams. Dose distributions were evaluated to determine the best block and ideal energy for the patient’s disease.

**Results:** The Cerrobend rod did the best job of blocking the radiation in the center of the field while still treating the area corresponding to the white of the eye. It was determined that energy of 6 MeV generated adequate disease coverage. The patient seen at the Brown Cancer Center was prescribed 26 Gy to the 90% isodose line in 13 fractions at 6 MeV for each eye. The bottle nipple was used to block the lens each day and yielded a successful treatment.

**Conclusions:** This technique is an excellent option for certain diseases of the eye. It provides a safe yet simple way to effectively treat the patient while shielding the lens from radiation that even at relatively low doses could form cataracts in the eye.