

Capital Health Center for Oncology

CYBERKNIFE® (CK) EXPERIENCE TO TREAT PROSTATE CANCER

August 2008 – August 2016 · Shirnett Williamson, MD & Timothy Chen, MD

INTRODUCTION

- Over an 8-year period, 75 men were treated with CK alone for their prostate cancer.
- The first 24 patients were enrolled in the Accuray CK research protocol through Swedish Medical Center, Seattle, WA and 16 of them currently remain in follow-up.
- An additional 51 men were treated after the protocol closed using the same methodology.
- Currently, we also offer CK to more advanced prostate cancer patients as a boost to their IMRT, or as one of their re-treatment modality options. These patients are not included in this analysis.

TYPES OF PROSTATE CANCER PATIENTS TREATED WITH CK IN THE RESEARCH STUDY

- **Low Risk** (31 men) — (defined as Clinical Stage T1–T2a, Gleason 6, psa <10).
- **Intermediate Risk** (44 men) — Clinical Stage T1c–T2b
 - Gleason 7, psa <10 or
 - Gleason 6, psa 10–20

PATIENT OUTCOMES

- All CK treatments occurred between August 2008 and August 2016. Patients have been followed from less than six months up to eight years. One patient was lost to follow-up immediately after CK, but this patient was also included in this analysis.
- **Overall Survival:** CK achieved a 97% overall survival rate. Those patients that expired were within six months and caused by unrelated diseases and conditions.
- **PSAs:** All men had a decrease in their psa from their initial psa at the time of their last follow-up visit except for four patients. This is a 5% failure rate or 95% biochemical disease free survival rate.
 - Two went for further workup, and two had a slow rise and are being followed.
 - 91% of psa's fell below 1.0 ng/dl at three years, which is consistent with national guidelines.
- **Acute Toxicity** (defined as toxicity within the first three months of CK)
 - **Urinary Symptoms**
 - 56% of men had mild symptoms which resolved.
 - 2% had moderate symptoms which resolved.
 - **Rectal Symptoms**
 - 23% had mild symptoms which resolved.
 - 1% had moderate symptoms which resolved.
- **Late Toxicity** (defined as toxicity after three months of CK).
 - **Urinary Symptoms** — 4% of men had mild symptoms which resolved.
 - **Rectal Symptoms** — No symptoms reported.
- **Sexual Function** — preserved in 71% of the men seen at their last follow-up visit and 72% in the 18 men followed at five years. This is a higher rate as compared to other treatment modalities.

CONCLUSION

- CK has been shown to be compatible to other prostate cancer treatment modalities, and this is consistent with Capital Health's experience.
- CK is now a standard treatment approved by national guidelines. CK is no longer considered to be experimental and is given in only five treatments.



FOR MORE INFORMATION, visit capitalcyberknife.org or call 609.303.4565.