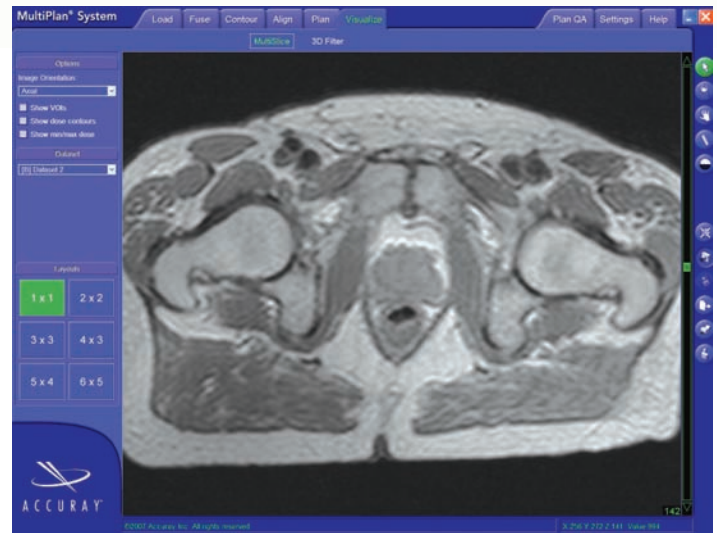
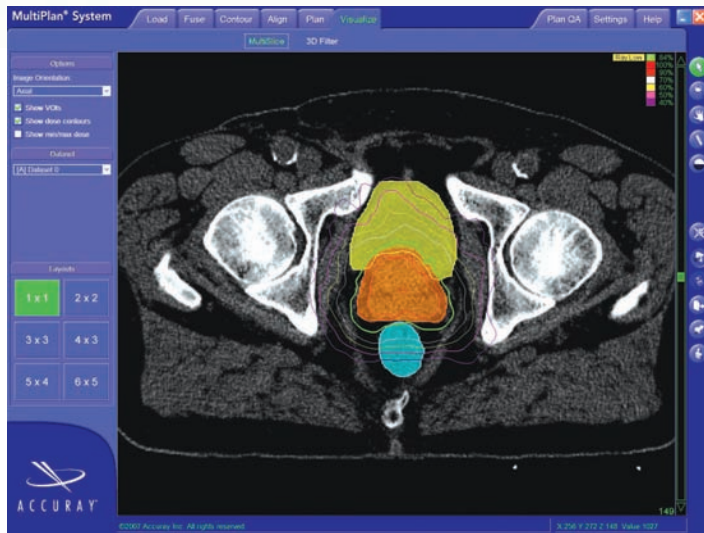


# CASE STUDY

## Extracranial Treatment of a Prostate Adenocarcinoma



### Patient History

An examination of a 77-year-old male revealed an enlarged prostate. The biopsy confirmed prostate adenocarcinoma, stage T1-C, Gleason score 7 (3 + 4) involving 75 % of the biopsy specimen. The PSA also increased from 2.6 to 4.6 within one year. Hormone therapy was initiated (Lupron Depot® 30 mg) on 10/24/07 and a second dose on 2/24/08.

### CyberKnife® Advantage

Early follow-up of low and intermediate-risk prostate cancer treated with the CyberKnife has shown excellent tumor control and minimal side effects with only five treatments. Conventional IMRT requires 35 - 42 treatments over 6 - 7 weeks. Other options include prostatectomy (open or robotic), brachytherapy with permanent radioactive seeds, or even observation. Prostatectomy was not offered due to significant medical co-morbidities. CyberKnife radiosurgery was chosen.

### Treatment

Fiducial markers were placed as an outpatient prior to his radiosurgery treatment. The patient was immobilized in an Alpha cradle. A 30 mm and a 50 mm collimator were used to treat the 40 cc prostate to a prescribed dose of 3625 cGy (prescribed to the PTV) calculated to the 84% isodose line and with a Dmax of 4315 cGy. Each treatment consisted of 157 beams. The conformity index was 1.16; new conformity index was 1.19; homogeneity index was 1.19. Each of the five 45-minute fractions were delivered over 10 days. Treatment was completed on January 18, 2008.

### Outcome & Follow-Up

After CyberKnife treatment, the patient experienced frequent urination and mild urethritis for about 2 weeks, but no early rectal or other noted side effects. He has maintained a very active lifestyle since treatment. At his 4-month follow-up visit in April, he had a decrease in PSA value from 4.5 to 0.1 with no evidence of disease recurrence or progression.

If you would like your patient case reviewed at our weekly case conference, call 337-289-8070.

 **CyberKnife Center**  
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