Major Site Report
Prostate Cancer
2016
Comparison of the dosimetric effects of Hydrogel versus endorectal balloons on rectal dose sparing in prostate cancer patients

**Background:** The study was conducted to evaluate the difference in radiation dose to the rectum in the treatment of prostate cancer

**Methods:** A retrospective review of 100 patients treated in the Radiation Oncology Department over a period of 18 months. The patients were evenly matched based on the rectal sparing device utilized. All patients were treated using the same treatment algorithm, megavoltage energy, and on the same treatment machine

**Results:** Hydrogel reduced the dose to 2ccs of the rectum from 7692cGy to 5902cGy (23.3%), the Dose to 50% of the rectum from 2098cGy to 1466cGy (30.1%) and the maximum dose to the rectum from 8137cGy to 7656cGy

**Conclusions:** Hydrogel produced a significant dosimetric reduction in the radiation dose to the rectum

November 2016
SpaceOAR System – Spacing Organs At Risk (OAR): Rectal Protection for Prostate Cancer Radiation Therapy Patients

SpaceOAR System reduces rectal injury in men receiving prostate cancer radiation therapy (RT) by acting as a spacer – pushing the rectum away from the prostate.

Anatomy without SpaceOAR System
The rectum is next to the prostate complicating prostate radiation therapy.
With SpaceOAR System
The SpaceOAR Spacer pushes the rectum away from the prostate, decreasing rectal injury during prostate RT.

A Little Space Makes a BIG Difference™

Placed between the prostate and rectum, SpaceOAR hydrogel pushes the rectum out of the high dose radiation region. Like prostate cancer cells, cells in the rectum are also damaged by the high dose radiation. That’s why the rectum is called the Organ AtRisk (OAR) during prostate radiation therapy.
SpaceOAR Hydrogel Pushes the Rectum Out of the High Dose Radiation Field

The hydrogel spacer is injected during a minimally invasive procedure, and — once in place — patients typically can’t feel it. The hydrogel is safe and similar to other products used in brain surgery, cardiology and ophthalmology. It remains in place for 3 months during radiation treatment, and is then absorbed and leaves the body in the patient’s urine — leaving nothing behind.

*An abstract accepted at the ASCO 2017 Genitourinary Cancer Symposium showed that SpaceOAR hydrogel, placed between the prostate and rectum in men undergoing prostate radiotherapy, helps men maintain sexual function and potency and decreases GI toxicity following intensity modulated radiation therapy (IMRT) resulting in less diarrhea, less pain with bowel movements and other rectal side effects and improved quality of life.
Relative volume of the rectum

Absolute dose (cGy)