

Evaluation of SABR (Stereotactic Ablative Body Radiotherapy) in the Management of Oligometastatic Prostate Cancer: A Case Report of Single Center

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Categories: Urology, Radiation Oncology, Medical Physics Keywords: sabr, prostate cancer, imrt, radiotherapy

How to cite this abstract

Uysal B (October 24, 2019) Evaluation of SABR (Stereotactic Ablative Body Radiotherapy) in the Management of Oligometastatic Prostate Cancer: A Case Report of Single Center. Cureus 11(10): a440

Abstract

Objective(s): Our purpose is to analyze the results of case whom managed with fractionated SABR. Biochemical response of PSA and testosterone levels are the primary goals of our study. Overall survival and local control are the secondary aims of our analysis.

Methods: 57-year-old patient had urinary frequency and disuria symptoms in June 2008. PSA level was 6.3 ng/ml. USG, MRI and bone syntigraphy was normal. The urologist decided to operate him after oncological council. He was managed with radical prostatectomy in 08/07/2008. Gleason score was 4+4=8. Lymph nodes are reactive. Prostate tissue was covered with 20-25% of tumor. Morphological type was mixt adenocarcinoma. Extracapsular invasion was positive. Surgical borders are negative. No tumor was seen in vesicula seminalis. Perineural invasion is also positive. He used leuprolide acetate for 3 years after operation. PSA elevated to 1.56 ng/ml in June 2014. Salvage IMRT was delivered to the patient with 64 Gy in 2 Gy per fraction between November and December 2014. He started to use leuprolide acetate again and was stable after that for 5 years. PSA failure was seen in February 2019. Ga-68 PSMA PET-CT was done for the patient. Suv maks value for right external iliac lymph node was 3.6 and no other Suv value for the primary and other locations. 6 Gy per fraction was delivered 5 times for the single node metastasis with SABR. 94 % isodose was approved for target PTV.

Results: Blood tests, PSA, testosterone, urinary analysis, x-ray, abdominal ultrasonography were done for this patient.Last total PSA value was 0.89 ng/ml and he continued to use leuprolide acetate. Other all tests were normal and he is alive and local control is 100 % about his disease. We keep on following up for 3-monthly. Maximum total doses were 3223 cGy, 2648 cGy, 1627 cGy, 1180 cGy for PTV, bowel, bladder and rectum respectively.

Conclusion(s): Oligometastatic cancer is termed with four aces including young age, fit patient, low disease burden, slow-growing disease. Our patient is exactly compatible with this term. Novel improvements were rised with local innovative therapies like SABR. Potential results and quality of life of SABR in prostate cancer is highly promising. Immunotherapy plus SABR maybe the futuristic option of this oligometastatic patients.

Open Access Abstract Published 10/24/2019

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