

Purpose or Objective

To evaluate the role of stereotactic body radiotherapy (SBRT) for oligometastatic prostate cancer (oPC).

Material and Methods

In current Turkish Radiation Oncology Group (TROD) study clinical data of 43 patients receiving metastases-directed SBRT between July 2014 and March 2017 from 4 institutions was retrospectively evaluated. Prior therapy was radical prostatectomy (RP) alone (30%), RP followed by adjuvant radiotherapy (28%) or definitive radiotherapy (RT) (42%). All of the patients should have biopsy proven prostate cancer with 5 or less metastases shown by Ga68-PSMA (Prostate Specific Membrane Antigen) PET-CT. SBRT was delivered in median 3 fractions (range, 1-5 fractions) to a total dose of median 27 Gy (range, 15-35 Gy).

Results

Median age was 64 years (range, 42-79 years). Median initial PSA was 21.5 ng/dL (range, 5-160 ng/dL) and Gleason score was 8 (range, 6-10). At the time of initial diagnosis, 18 patients had T3a, 12 patients had T3b disease and 7 patients were metastatic. Median 1 metastatic lesion located in regional lymph nodes (41%), bone (46%) and both lymph node plus bone (13%) was treated. Thirty three patients received androgen deprivation treatment (ADT). With a median follow up of 14.5 months (range, 1-45 months), 13 patients (30%) had progressive disease and 54% of them were oligometastatic progression. None of the patients had relapse in the treated region. Time to progression was median 13 months. One and two year progression free survival rates were 76% and 59%, respectively. No patients reported grade 3 or more acute or late radiation related gastrointestinal or genitourinary side effects.

Conclusion

This multi-institutional study shows that SBRT for oPCa seems to be safe and effective. Most of the relapses are oligometastatic, thus retreatment with SBRT might be an option for properly selected patients to avoid early ADT and its complications. Further prospective clinical studies should be done to evaluate this treatment option.

EP-1533 Stereotactic Body Radiotherapy in Prostate Cancer: A Single Center Experience

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Purpose or Objective

To evaluate our treatment results in patients with prostate cancer receiving definitive robotic stereotactic body radiotherapy (rSBRT).

Material and Methods

Between July 2007 and November 2016 135 patients were treated with CyberKnife® robotic radiosurgery treatment machine. According to our institutional treatment protocol we delivered 36.5 Gy in 5 fractions to prostate. According to D'Amico risk classification system 74 patients were in low-risk group and 61 patients were in intermediate-risk group. 'Phoenix definition' was used for biochemical relapse and Cavanagh definition was used for PSA bounce, respectively.

Results

Median follow-up time was 34 months (range, 3-111 months). Biochemical relapse was detected in 6 patients between the 26th and 56th months. PSA bounce was observed in 38 (29%) patients, and 30 of these patients had low-risk disease. Biochemical relapse was observed in 3 patients who experienced PSA bounce during the follow-up. For the whole group, 3-year biochemical relapse-free

survival (BRFS) and overall survival (OS) rates were 95% and 92%, respectively. Presence of PSA bounce did not have an effect on BRFS rates; however, OS rate was significantly higher in patients with PSA bounce, independent from the risk group (p=0.025). Treatment was well tolerated with no grade 3 or more acute toxicities. Late grade III gastrointestinal system and grade III genitourinary system toxicity was observed in 4 and 11 patients, respectively.

Conclusion

Prostate rSBRT is an effective and safe treatment for patients with low-intermediate risk prostate cancer with acceptable toxicity rates.

EP-1534 Clinical Outcomes for Patients with Gleason Score 10 Prostate Adenocarcinoma: TROD 09-004 Study

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Purpose or Objective

Gleason score (GS) 10 disease is a rare and an aggressive form of prostate adenocarcinoma (PCa). In this national multi-institutional study we evaluated the treatment outcomes for this subgroup of patients.

Material and Methods

The clinical data of 30 patients receiving definitive radiotherapy (RT) plus androgen deprivation therapy (ADT) between January 2001 and March 2015 from 6 institutions was retrospectively evaluated in current Turkish Radiation Oncology Group (TROD) study. All of the patients had biopsy proven disease. Follow up duration of at least 24 months was mandatory. ASTRO Phoenix definition was used for biochemical relapse.

Results

Median age was 65 years (range, 58-78 years). Median initial PSA was 25 ng/dL (range, 4.5-150 ng/dL). Median RT dose was 75 Gy (range, 70-78 Gy) and 12 patients received pelvic radiation as a part of treatment protocol. All patients received ADT with median duration of 24 months (range, 9-48 months). With a median follow up time of 66.5 months, 13 patients (43%) had biochemical relapse, 2 patients (7%) had local relapse and 8 patients (27%) had distant metastases. Five-10 year overall survival (OS) and biochemical relapse free survival (BRFS) rates were 78%-66% and 56%-42%, respectively.

Conclusion

To our knowledge this is the first study to give BRFS in GS=10 prostate cancer patients treated with RT and long term ADT. Regarding the rarity of the disease multi-institutional studies are valuable in the further evaluation of this group of patients.

EP-1535 Vessel-sparing prostate V-MAT with simultaneous integrated boost to dominant intraprostatic lesion

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