MODERATE HYPOFRACTIONATED VOLUMETRIC MODULATED ARC THERAPY WITH DAILY IMAGE GUIDANCE FOR PROSTATE CANCER: MONOINSTITUTIONAL REPORT OF FEASIBILITY AND SAFETY IN ELDERLY PATIENTS

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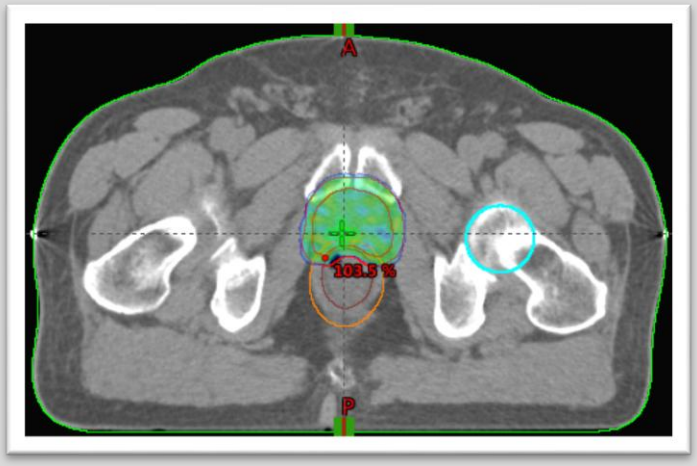
AIMS

To evaluate the feasibility and safety of moderated hypofractionated volumetric modulated arc therapy with daily image guidance (VMAT-IGRT) for prostate cancer (PCa) elderly patients.

METHODS

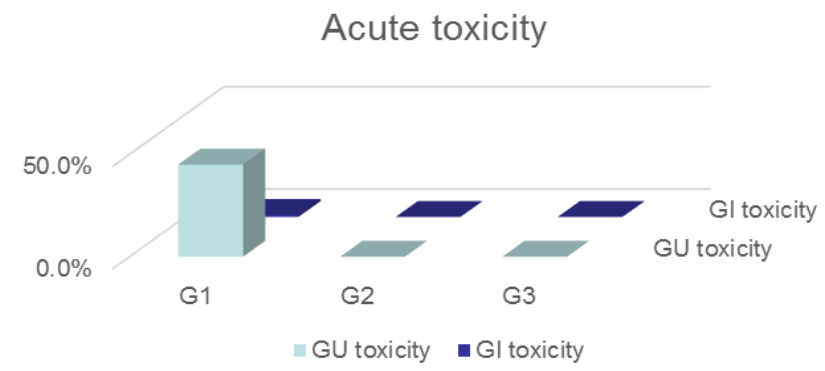
Between December 2016 and February 2018 thirty-one PCa elderly patients (≥70 years old) were treated by means of VMAT-IGRT. Dose prescription was 67.5 Gy in 25 fractions to prostate with or without seminal vesicles. Toxicities were assessed according to Common Terminology Criteria for Adverse Events (CTCAE) scales, version 4.02. Biochemical failure was defined as the nadir PSA level plus 2 ng/ml.

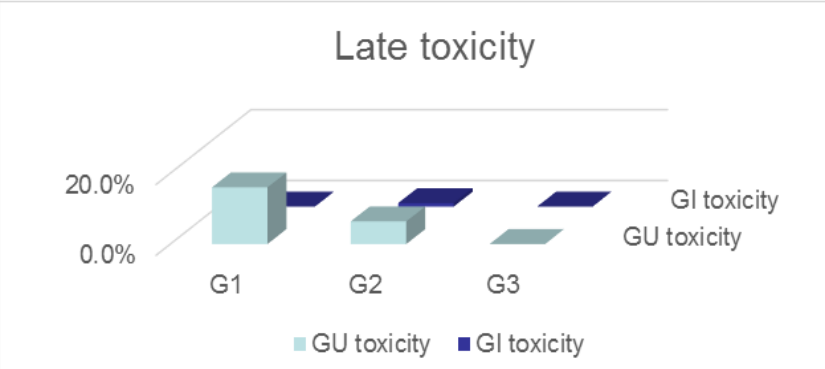


RESULTS

Median age was 76 years (range 70-87 years). Median follow up was 12 months (range 4-17 months). According to risk category three patients out of thirty-one (10%) were low risk, 24/31 (77%) were intermediate risk and 4/31 (13%) were high risk.

All patients completed the treatment as planned. No ≥ G2 acute genitourinary (GU) and rectal (GI) toxicity occurred. In 45% patients, G1-GU acute toxicity was recorded. Only a patient shown G1-GI acute toxicity. No G3 early late GU and GI toxicities were reported. G1-GU early late toxicity was developed by 16% of the patients. Only a patient reported G1-GI early late toxicity. G2-GU early late toxicity was observed in 6.4% and only one patient had G2-GI early late toxicity. No biochemical failure was recorded.





CONCLUSIONS

Moderate hypofractionated VMAT-IGRT for PCa elderly patients showed to be well tolerated and safe in terms of acute toxicity and early late toxicity. A longer follow-up is needed to define the efficacy on outcomes and late toxicity.

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