Azienda Ospedaliera
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# STEREOTACTIC BODY RADIOTHERAPY (SBRT) IN OLIGOMETASTATIC PATIENTS WITH CANCER OF THE PROSTATE

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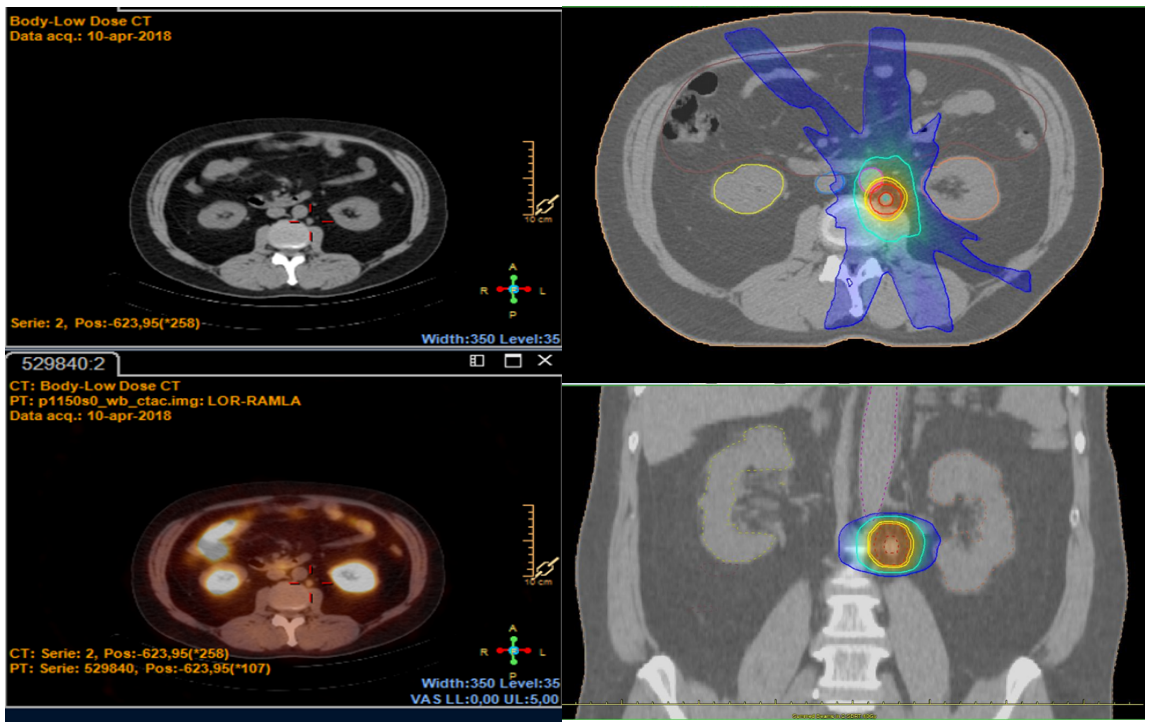
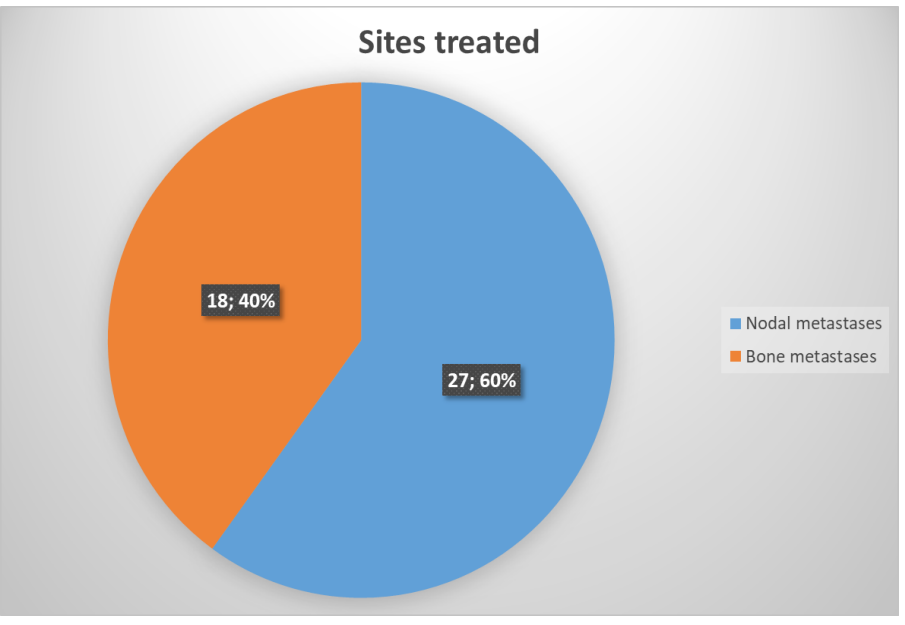
**Aim**: to evaluate the outcome of patients (pts) treated with SBRT with or without androgen deprivation therapy (ADT) for nodal or bone recurrence after primary local treatment with External Beam Radiotherapy (EBRT) or surgery.

**Methods**: We retrospectively analyzed data of patients treated with SBRT for oligometastases at Niguarda Cancer Center between 2010 and 2017. All patients showed less than 3 lesions detected with choline PET-CT or MRI. Biochemical response was evaluated with PSA level variation between pre-RT and post-RT. Biochemical failure was defined as a PSA rising beyond pre-RT levels. PET imaging was performed only in case of biochemical failure to differentiate local from systemic failures.

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**Results**: Median age was 76 years. Median PSA before SBRT was 2.48 ng/ml. Initial NCCN class risk was intermediate in 7 pts (19%) and high in 29 (81%). Androgen deprivation was added in 8 pts (22%) before SBRT, 18 pts (50%) were already receiving hormonal therapy and ten pts (28%) were without systemic treatment. Median dose was 30 Gy/3-5 fractions for BM and 36 Gy/3-4 fractions for NM, lower doses being delivered in previously irradiated volumes. All treatments were image guided (IGRT). Median follow-up was 44 months (range 4-86 months), with two pts (5%) lost to follow up. No significant acute or late toxicity was reported. A complete PET response was observed in 39 treated sites (87%), while in field progression or no response occurred at 6 sites (13%). Twenty pts (51%) showed a biochemical progression of disease, confirmed by PET imaging in all cases. Median time to biochemical progression was 12 months (range 3-85 months). Three pts (8%) died: two (5%) for systemic disease progression and one (3%) for other causes.

**Conclusions**: SBRT for oligometastatic disease due to prostate cancer is a safe treatment modality associated with a high local control rate (88% in our series). Further data are needed to identify patients who could benefit most from this treatment.