

# Phase 1 study SBRT for bone metastases in oligometastatic patients. So far, "few toxicity events and high local control rate"



stereotactic radiosurgery for bone metastases in oligometastatic prostate cancer patients: DESTROY-2 clinical trial subanalysis

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## Introduction

Aim of this analysis was to report toxicity and clinical outcomes in oligo recurrent prostate cancer (PCa) patients treated with single fraction stereotactic radiosurgery (SRS) for bone metastases.

## Methods

We separately analyzed clinical data of PCa patients with bone oligometastases enrolled in a prospective phase I trial (DESTROY-2). DESTROY-2 was based on SRS delivered using volumetric modulated arc therapy in patients with primary or metastatic tumors in several extra-cranial body sites. Acute and late toxicity, biochemical tumor response, local control (LC), distant metastases-free (DPFS), progression-free (PFS), time to next-line systemic treatment-free (NEST-FS), and overall survival (OS) were calculated.

## Results

Data on 37 PCa patients, carrying out 50 bone metastases, candidates for curative-intent treatment and treated with SRS at our Institution were collected. SRS dose ranged between 12 and 24 Gy. One grade 1 acute skin toxicity in one patient treated on the hip (24 Gy) and one grade 1 late skin toxicity in a patient with a scapular lesion (24 Gy) were recorded. No cases of bone fracture were registered in the treated population. With a median follow-up of 25 months (range 3–72 months) 2-year actuarial LC, DPFS, PFS, and OS were 96.7%, 58.1%, 58.1%, and 95.8%, respectively. Median and 2-year NEST-FS were 30 months (range 1–69 months) and 51.2%, respectively.

### Conclusions

Data analysis showed few toxicity events, high local control rate and prolonged NEST-FS after linear accelerator-based radiosurgery of bone oligometastases from PCa. The possibility of postponing systemic treatments in patients with oligometastatic PCa by means of SRS should be taken into account. Further prospective studies on larger series are needed to confirm the reported results.