**Abstract form**

Case Report of Stereotactic Body Radiation Therapy for Oligometastatic Breast Cancer Patient

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**Purpose**

The effectiveness of stereotactic body radiation therapy (SBRT) in oligometastatic disease is being studied in several primary tumor. Previous studies showed the effectiveness and safety of SBRT in patients with non-small-cell lung cancer, but NRG-BR002 study which include oligometastatic breast cancer patients did not show an additional survival benefit.

**Materials and Methods**

We retrospectively evaluated the data of patients who underwent SBRT for oligometastatic breast cancer at our institution between October 2018 and April 2024. Treatment outcomes and toxicities were analyzed.

**Results**

1 patient underwent SBRT for oligoprogressive breast cancer.

The patient was diagnosed with multiple bone metastases prior to the diagnosis of breast cancer in 2018. We performed palliative irradiation for bone metastases in the thoracic and cervical spine.

From January 2019 to November 2021, the patient was treated with exemestane, but an MRI revealed bone metastasis to the lumbar spine, and the treatment was changed to combination therapy with Fulvestrant and Verzenio. In December 2023, bone scintigraphy revealed new bone metastasis to the pubic bone. SBRT 60 Gy in 10 fractionation was performed for pubic bone metastasis In January 2024.

No acute adverse events were noted, and a diffusion-weighted MRI performed 3 months after treatment showed low signal intensity.

**Conclusion**

SBRT showed to be effective and was associated with acceptable toxicity for the oligometastatic breast cancer patients.