

STEREOTACTIC BODY RADIOTHERAPY IN OLIGOMETASTATIC - OLIGORECURRENT NON-SMALL-CELL-LUNG CANCER PATIENTS: A NEW THERAPEUTIC APPROACH

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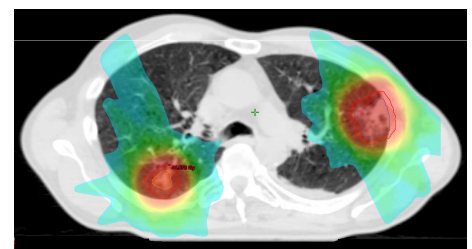


BACKGROUND

Stage IV NSCLC is characterized by a poor prognosis; nevertheless in patients with limited disease (1-5 metastases), called oligometastatic disease, has been observed a slightly better prognosis. The opportunity for local treatment in this stage of disease is not explored yet, but the management of oligometastatic disease is controversial.

AIM

Evaluate the impact of a stereotactic body radiotherapy (SBRT) delivered in all active sites in the lung in patients with oligometastatic/oligorecurrent NSCLC. Response, survival, time to progression, sites of progression and toxicity were assessed



PRESCRIBED DOSE

23 Gy/single fraction for multiple lesions

30Gy/single fraction for peripheral or small tumors (< 30cc)

45 Gy/3 fractions for centrally located or large tumors (≥ 30cc)

MATERIALS AND METHODS

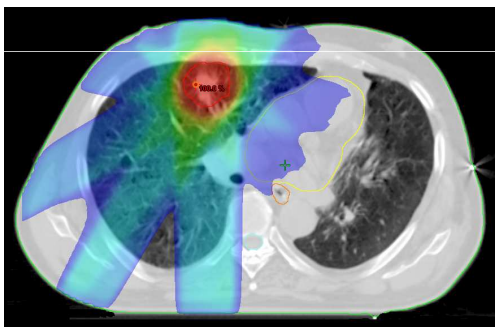
29 lung metastases

22 patients affected by oligometastatic NSCLC - 72% male, 28% female
SBRT to all active sites of disease.

Median follow-up 18 months.

Inclusion criteria:

- controlled primary tumor with complete response or stable disease after surgery/radiotherapy/combined therapy
- ≤ 4 synchronous or metachronous lung metastases at the time of treatment
- no other active sites of distant metastasis.



RESPONSE

Response to treatment:

Complete response 21%

Partial response 69%

Stable disease 10%.

PET-CT:

Complete metabolic response 91%

Partial response 9%

SURVIVAL AND TOXICITIES

1-year and 2-years OS 86% and 49%.

1-year and 2-years PFS 79% and 40%

Median TTP 18 months and median OS 24 months

Local control 93% at 1 year and 64% at 2 years.

Local progression occurred in 4 metastases (14%).

Overall, acute toxicity 18% (4/22) of patients. Two patients experienced grade 2 pneumonitis. Grade 1-2 late toxicity in 50% of patients. No grade ≥3 toxicities

CONCLUSION

Local treatment is a feasible and well-tolerated treatment for oligometastatic NSCLC patients. Ablative RT has a potential role in the local control of the lung metastases and in the management of well-selected stage IV NSCLC patients in increasing quality of life and survival.