
HUMANITAS
CANCER CENTER

# Radioterapia stereotassica ablativa nel trattamento delle lesioni polmonari in pazienti affetti da NSCLC oligometastatico: tossicità e risultati clinici

**Fiorenza De Rose**, Anna Maria Ascolese, Pierina Navarria, Elena Clerici, Tiziana Comito, Angelo Tozzi, Cristina Iftode, Ciro Franzese, Elisa Villa, Sara Pentimalli, Marta Scorsetti

U.O. Radioterapia e radiochirurgia, Humanitas Clinical and Research Center, Rozzano (Mi)

# Background

HUMANITAS CANCER CENTER

- Oligometastatic patients: metastases are limited in site and number
- Different types of local therapies have been used for the treatment of limited metastases, mostly in the lung and liver
- Data on the use of SABR are emerging and the early results on local control are promising

- **definitive treatment** of PT
- **lack of intra-thoracic N** mets
- disease free interval > **6-12 months**

Long-term survival improvment


Lung Cancer

Is there an oligometastatic state in non-small cell lung cancer? A systematic review of the literature

Allison Ashworth, George Rodrigues, Gabriel Boldt, David Palma

*The biggest challenge in the treatment of oligometastatic disease is to identify the patients who will benefit from **local aggressive therapy***

fiorenza.de_rose@humanitas.it

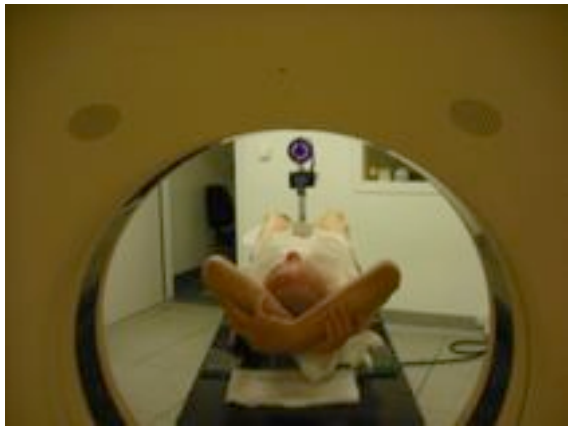
# Methods and Materials

HUMANITAS CANCER CENTER

- NSCLC patients with lung metastases
- Oligometastatic disease
- Up to 4 lesions
- Definitive treatment of primary lung tumor
- Adequate pulmonary function
- Discussion in a multidisciplinary team

## PROCEDURE

- Thermoplastic masks for the thoracic region
- CT scan from the mandible to L3 with 3 mm slice thickness in a free breathing mode
- 4D-CT scan to evaluate organ motion
- Personalized margins according to the respiratory motion
- CBCT every day



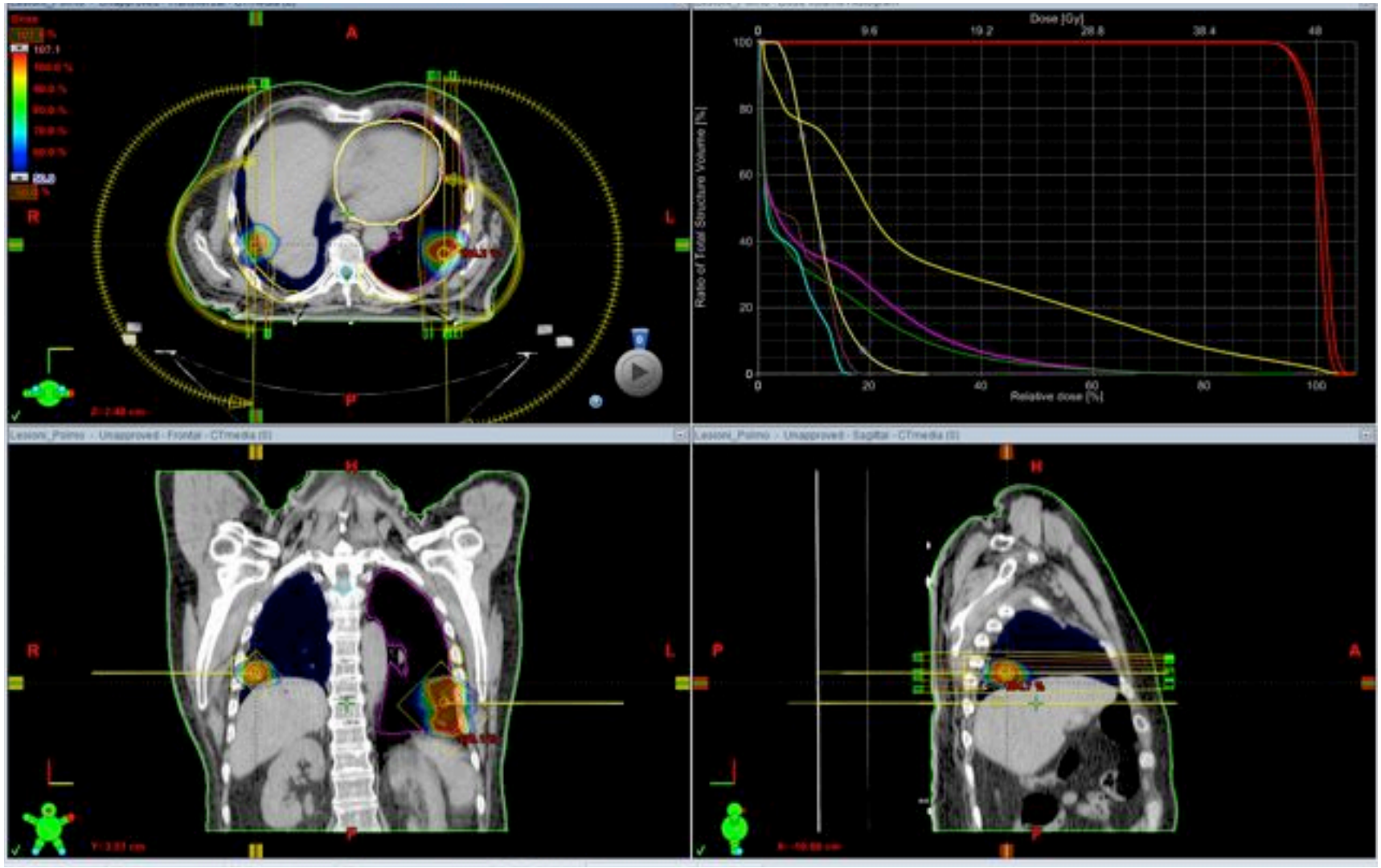
## DOSE PRESCRIPTION

| | |
|---|---|
| Peripheral lesions ≤ 2 cm | 60 Gy/3 fr |
| Peripheral lesions | 48 Gy/4 fr |
| Central lesions | 60 Gy/8 fr |

fiorenza.de_rose@humanitas.it

# Methods and Materials

HUMANITAS CANCER CENTER



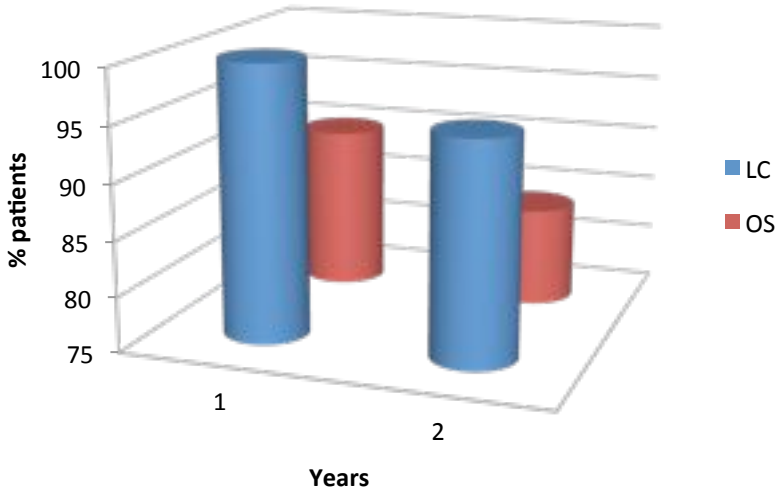

fiorenza.de_rose@humanitas.it

HUMANITAS CANCER CENTER

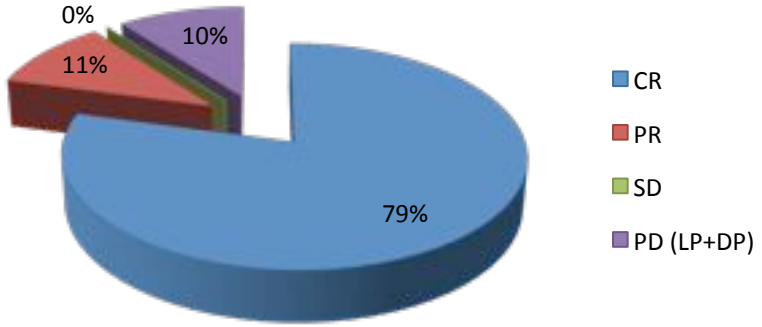
# Results

- 41 evaluable patients (65 lung lesions)
- Median follow up 24 months (6-40 months)
- Median age 68 years (range 50 – 85 years)
- No pulmonary toxicity greater than GRADE 2
- No CHEST PAIN or RIB FRACTURE

**Local control & overall survival**



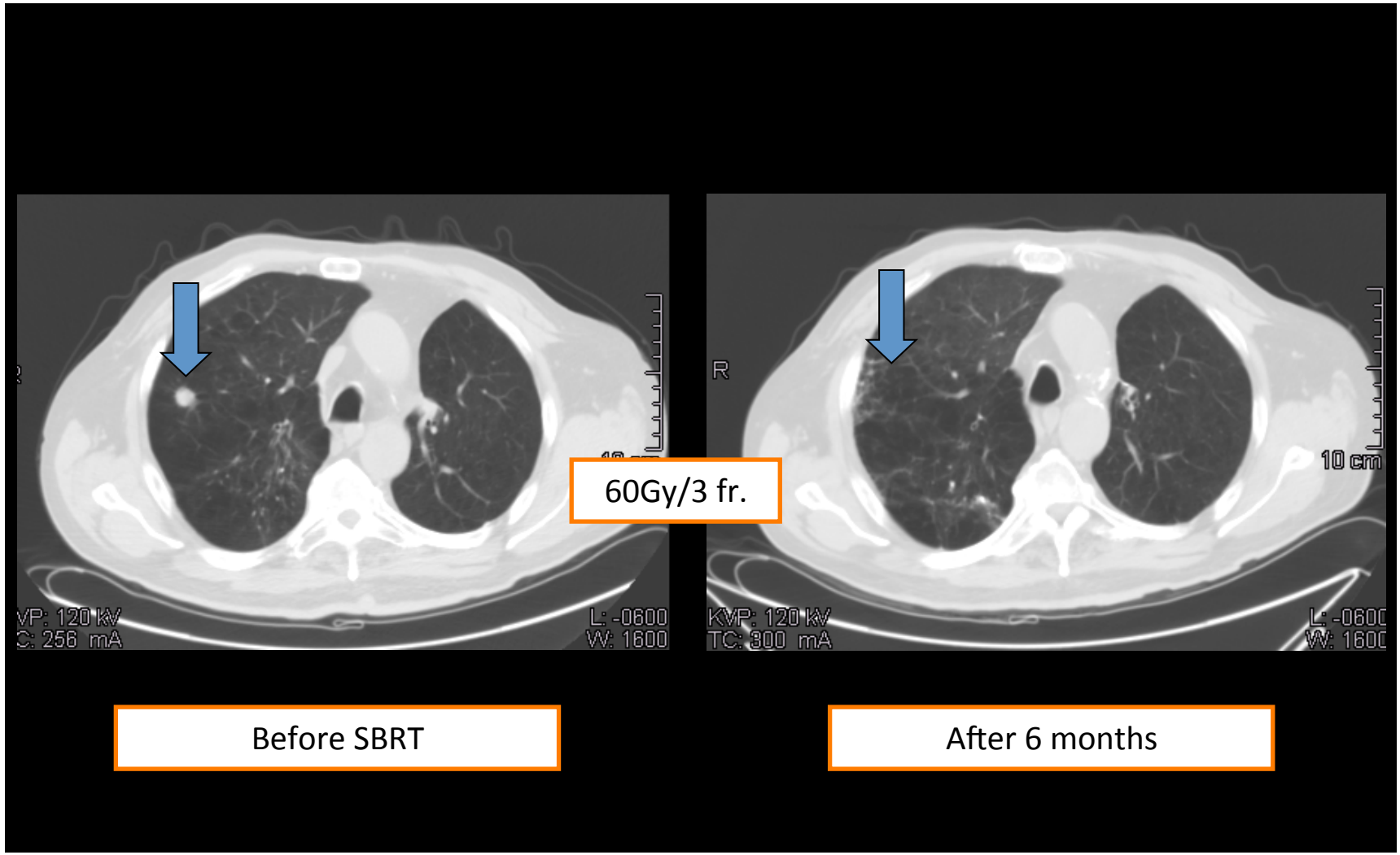

**Radiological response**




fiorenza.de_rose@humanitas.it

# Results

HUMANITAS CANCER CENTER




fiorenza.de_rose@humanitas.it

HUMANITAS CANCER CENTER

# Conclusions


fiorenza.de_rose@humanitas.it