

XXXIII CONGRESSO NAZIONALE AIRO

# AIRO2023

BOLOGNA,  
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PALAZZO DEI CONGRESSI

Radioterapia Oncologica: l'evoluzione al servizio dei pazienti



Associazione Italiana  
Radioterapia e Oncologia clinica



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## **RADIOTERAPIA FOCALE NEL MESOTELIOMA PLEURICO IN OLIGO- PROGRESSIONE: ALLA RICERCA DELLA DOSE OTTIMALE**

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**Oligo-progressive PM** defined as an unresectable disease with radiological progression at  $\leq 3$  sites according to a chest-abdominal contrast-enhanced CT after at least 1 line of systemic disease.

Focal RT (SBRT vs HypoRT) is safe and effective for selected patients with oligoprogressive mesothelioma (*Schroder et al, Front Oncol 2019 ; Ghirardelli et al., Lung Cancer 2021; Barsky et al. Lung Cancer 2021*)

Retrospective study of SBRT ( $> 5$  Gy per fraction) on oligo-progressive disease (defined as  $\leq 3$  lesions detected by contrast - enhanced CT scan).

**Two groups: intermediate dose SBRT (i-SBRT: 30-36 Gy in 5-6 fractions) vs high dose SBRT (h-SBRT: 45-50 Gy in 4-8 fractions).**

From Jun 2014 to Sep 2022, **23 patients** (13 males and 10 females) were treated in two institution, **15/23 in the i-SBRT** group and **8/23 in the h-SBRT** group.

Histology: almost all hepitelioid, except 1 sarcomatoid and 1 biphasic, both in the i-SBRT group.

PS : all patients ECOG 0 except 4/23 patients ECOG 1.

Previous Surgery: patients underwent **extended P/D** were 4/15 patients (**26%**) in the **i-SBRT** group and 4/8 (**50%**) in the **h-SBRT** group.

Upfront systemic treatments: patients underwent **SBRT after one line of systemic therapy** were **60-62% in both groups** (9/15 and 5/8).

	<b>i-SBRT (15 patients)</b>	<b>h-SBRT (8 patients)</b>
<b>RT schedule</b>	30 Gy/5 fr (8/15, 53%) 36 Gy/6 fr (4/15, 26.6%) 32.5 Gy/5 fr (1/15, 6.6%) 35 Gy/5 fr (2/15, 13.2 %)	45 Gy/6 fr (2/8, 25%) 48 Gy/8 fr (2/8, 25%) 48 Gy/4 fr (1/8, 12.5%) 49 Gy/7 fr (1/8, 12.5%) 50 Gy/5 fr (2/8, 25%)
<b>Median PTV (77.5 cm<sup>3</sup>, range 13.9-446.4)</b>	83.6 cm <sup>3</sup> (range 13.9-347.1)	59.9 cm <sup>3</sup> (range 22.4-446.4)
<b>Median (mean) EQD2(10) (range)</b>	40 Gy (43.72 Gy) (range 40-49.6)	74.46 Gy (74.65 Gy) (range 64-88)
<b>Median BED(3) (range)</b>	90 Gy (90-116)	160 Gy (144-240)

**Local Control:** 2 patients relapsed locally, 1/15 in i-SBRT group (30 Gy/5 fr) and 1/8 (48 Gy/8 fr) in h-SBRT group (both had a distant progression months before local relapse). **LC rates were 100% and 80-67% at 1yr and 2yrs for both groups.**

**Toxicity** (CTCAE 4.0): no toxicity in the i-SBRT group; 2/8 patients with G2 acute thoracic pain, 2/8 patients and 1/8 patients with late G2 and G3 thoracic pain in the h-SBRT group.

Distant PFS rates at 1 and 2yrs were 41,4% and 10.3%

Median TFST, PFS and OS in the overall population were 12, 8.2 and 38 months respectively. No significant differences were found between the two groups at the univariate analysis.



**Conclusion:** SBRT for oligoprogressive PM is a valid treatment options for selected patients. Lower SBRT doses seems to be equally effective and safer than “ablative” SBRT doses



..grazie per l'attenzione