

XXXII CONGRESSO NAZIONALE AIRO
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XII CONGRESSO NAZIONALE AIRO GIOVANI

AIRO2022

Radioterapia di precisione per un'oncologia innovativa e sostenibile

BOLOGNA, 25-27 NOVEMBRE
PALAZZO DEI CONGRESSI

 Associazione Italiana
Radioterapia e Oncologia clinica

 Società Italiana di Radiobiologia

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PRELIMINARY RESULTS FROM ARTO TRIAL (NCT03449719) A PHASE II RANDOMIZED TRIAL TESTING ASSOCIATION BETWEEN ABIRATERONE ACETATE AND STEREOTACTIC BODY RADIATION THERAPY IN OLIGOMETASTATIC CASTRATE-RESISTANT PROSTATE CANCER PATIENTS

A.G. Allegra^{1,2}; M. Banini^{1,2}, A. Peruzzi^{1,2}, G. Francolini¹, V. Di Cataldo¹, S. Caini³, A.R. Alitto⁴, S. Parisi⁵, C. Demofonti⁶, A. Bruni⁷, G. Ingrosso⁸, G. Timon⁹, F. Alongi¹⁰, B.A. Jereczek-Fossa¹¹, D. Genovesi¹², M. Scorsetti¹³, M.G. Carnevale^{1,2}, L. Livi^{1,2}

1. Radiation Oncology Unit, Azienda Ospedaliera-Universitaria Careggi; 2. Department of Biomedical, Clinical and Experimental Sciences "Mario Serio"; 3. Institute for Cancer Research, Prevention, and Clinical Network (ISPRO), Cancer Risk Factors and Lifestyle Epidemiology Unit; 4. Radiotherapy Oncology Department, Fondazione Policlinico Universitario A. Gemelli IRCCS, UOC Radioterapia; 5. Department of Radiation Oncology, BIOMORF; 6. Department of Radiotherapy, University of Tor Vergata; 7. Radiotherapy Unit, Department of Oncology and Hematology; 8. Radiation Oncology Section, Department of Surgical and Biomedical Science; 9. Radioterapia Oncologica, Azienda Unità Sanitaria Locale-IRCCS; 10. Advanced Radiation Oncology Department, Cancer Care Center, IRCCS Sacro Cuore Don Calabria Hospital, Negrar; 11. Division of Radiotherapy, IEO European Institute of Oncology, IRCCS; 12. Radiation Oncology Unit, SS Annunziata Hospital; 13. Radiotherapy and Radiosurgery Department, Humanitas Clinical and Research Centre
1.2.3. Florence (I), 4.6. Rome (I), 5. Messina (I), 7. Modena (I), 8. Perugia (I), 9. Reggio Emilia (I), 10. Verona (I), 11.13. Milano (I), 12. Chieti (I)



DICHIARAZIONE

Relatore: Andrea G. Allegra

- Posizione di dipendente in aziende con interessi commerciali in campo sanitario **NIENTE DA DICHIARARE**
- Consulenza ad aziende con interessi commerciali in campo sanitario **NIENTE DA DICHIARARE**
- Fondi per la ricerca da aziende con interessi commerciali in campo sanitario **NIENTE DA DICHIARARE**
- Partecipazione ad Advisory Board **NIENTE DA DICHIARARE**
- Titolarità di brevetti in compartecipazione ad aziende con interessi commerciali in campo sanitario **NIENTE DA DICHIARARE**
- Partecipazioni azionarie in aziende con interessi commerciali in campo sanitario **NIENTE DA DICHIARARE**
- Altro **NIENTE DA DICHIARARE**



Background: current evidence in mCRPC

- Retrospective trials have been performed describing the **safety** and **efficacy** of SBRT as Metastasis Directed Therapy in mCRPC
- Heterogeneous outcomes
- Very low toxicities were observed (<10% G3 toxicities)

SBRT is feasible, safe and improves clinical outcomes

More prospective data are needed to assess EFFICACY

Study, Year	n.	Staging	Systemic treatment	Outcomes	Conclusions
Triggiani, 2019	86	Standard	ADT	<ul style="list-style-type: none"> •Median systemic treatment-free survival of 21.8 months •One-year systemic treatment-free survival was 72.1% 	SBRT is promising in mCRPC
Ingrosso, 2021	34	Standard/NGI	ADT+ARTA	<ul style="list-style-type: none"> •Median NEST-FS: 13.5 months •Median r-PFS: 17 months •Median OS: 38 months 	SBRT seems to prolong the efficacy of the ongoing treatment
Onal, 2021	54	Standard/NGI	ADT+ARTA	<ul style="list-style-type: none"> •SBRT extended the ARTA treatment by 8.6 months on average 	SBRT provide benefits compared to switching to NEST
Henkenberens, 2021	42	NGI only	ADT	<ul style="list-style-type: none"> •Median bPFS: 12 months •Median Second line systemic FS: 15.0 months 	SBRT viable to delay further systemic therapies



ARTO trial-(NCT03449719)

A phase II randomized trial testing stereotactic body radiation therapy in patients with oligometastatic castration-resistant prostate cancer undergoing I line treatment with abiraterone acetate

- mCRPC
- ≤ 3 lesions
- No visceral lesions
- No previous therapies for mCRPC

1:1
RANDOMISATION

ARM A (Control)

Abiraterone acetate

ARM B (Treatment)

**Abiraterone acetate+SBRT
on all metastatic sites of disease**

- All staging methods (conventional, PSMA-PET, Cho-PET) allowed
- SBRT delivered in 1 to 5 fractions
- BED₃ ≥ 100 Gy was recommended

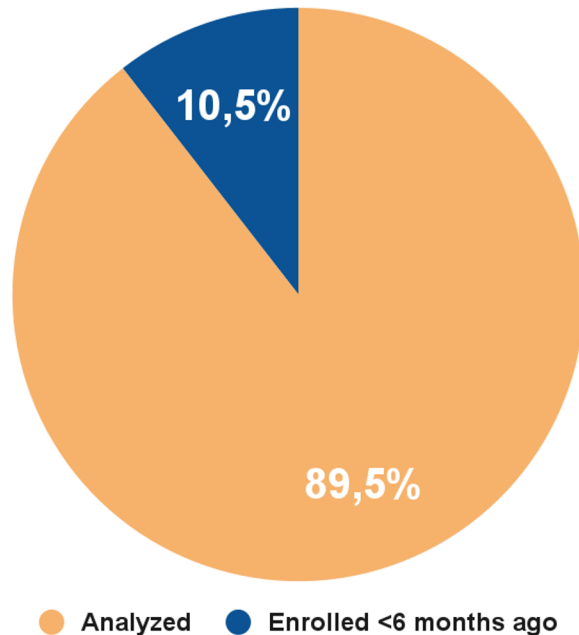
Primary endpoint of the trial: biochemical response (BR, defined as a PSA decrease $\geq 50\%$ from baseline measured within 6 months from treatment start).

Secondary endpoint of the trial: Complete biochemical response (CBR, defined as PSA at 6 months ≤ 0.2 ng/ml)



Study Population

Target sample size n=157 (100%)

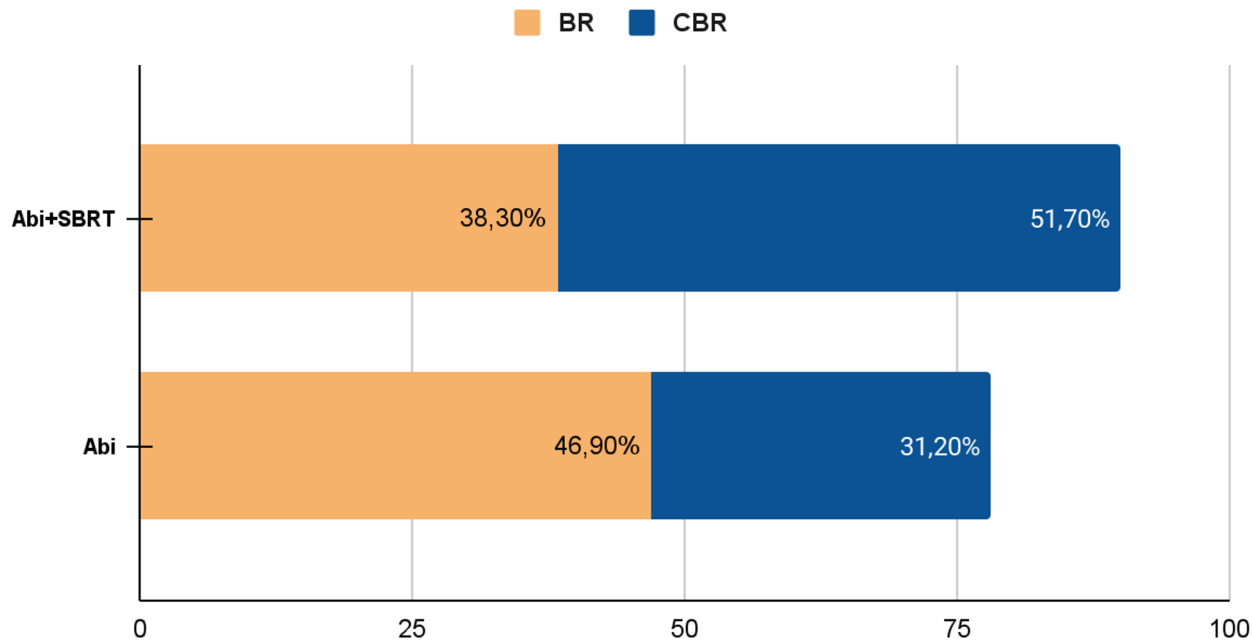


- 16 italian centres involved
- 157 patients needed to prove a 21% improvement in BR (80% power with a 5% type-1 error)
- 157 enrolled as of September 2022
- 136 in the current analysis



Preliminary Results

Biochemical Response



After adjustment for baseline PSA and the number of metastatic sites (> 1 vs. 1):

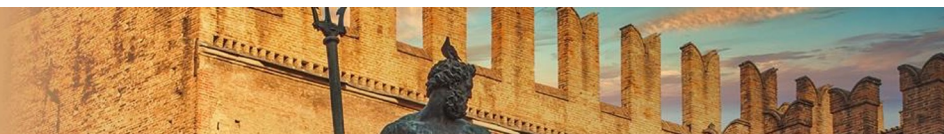
- OR for BR was 2.37
- OR for CBR was of 2.21
- PSA drop at 6 months showed a significant trend (p-value 0.005)



Adverse Events

- Very low toxicities were observed across both arms
- Most common AE in the experimental arm was fatigue
- Only 1 >G2 toxicity, unrelated to SBRT
- No treatment related deaths were observed

	ARM A (SoC) 53 pts		ARM B (Exp) 45 pts	
	<=G2	>G2	<=G2	>G2
Hypertension	5	1	2	0
LVEF dysfunction	0	1	0	0
Anemia	1	0	2	0
Fatigue	3	0	5	0
Hyperglycemia	2	0	2	0
Creatinine Increased	1	0	1	0
Hot Flashes	2	0	1	0
Hepatobiliary disorders	2	0	0	1
UTI	1	0	0	0
Lymphocyte Count Decreased	0	0	1	0
Edema Limbs	0	0	1	0
Total per Arm	16 (in 15 pts)		15 (in 13 pts)	
Total	35 (in 30 pts)			



Ongoing trials

Trial Name (NCT)	PILLAR (NCT03503344)	PCS IX (NCT02685397)	ARTO (NCT02685397)	OLI-CR-PC (NCT04141709)	DECREASE (NCT04319783)
<u>PI</u>	Dr. Aggarwal (San Francisco)	Dr. Niazi (Montreal)	Dr. Livi (Firenze)	Dr. Hölscher (Dresden)	Drs Azad & Siva (Melbourne)
<u>N (pts)</u>	60	130	157	66	87
<u>Imaging</u>	PSMA (≤ 5 mets)	Conventional (≤ 5 mets)	Conventional (≤ 3 mets)	PSMA (≤ 5 mets)	PSMA (≤ 5 mets)
<u>SOC</u>	ADT/Apa	ADT/Enza	ADT/Abi	No change in systemic Tx	ADT/Daro
<u>Experimental arm</u>	SBRT to all PSMA+ sites	SBRT to all M1 sites	SBRT to all M1 sites	SBRT to all PSMA+ sites	SBRT to all PSMA+ sites
<u>Primary outcome</u>	% undetectable PSA (@18mo)	rPFS	% PSA<50% (@6mo)	Time to PSA progression (Phoenix)	% undetectable PSA (@12mo)



Conclusions

Results showed promising efficacy of SBRT+AA combination if compared to systemic treatment alone for oligometastatic CRPC, OR for BR and CBR were doubled in treatment vs. control arm, even if statistical significance is not yet reached

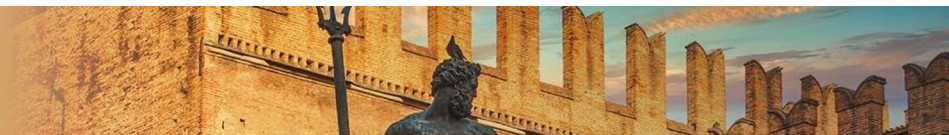
No unexpected toxicity in the SBRT+ABI arm

End of follow-up on the last treated patient in February 2023

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Grazie per l'attenzione



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