


XXXII CONGRESSO NAZIONALE AIRO  
XXXIII CONGRESSO NAZIONALE AIRB  
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

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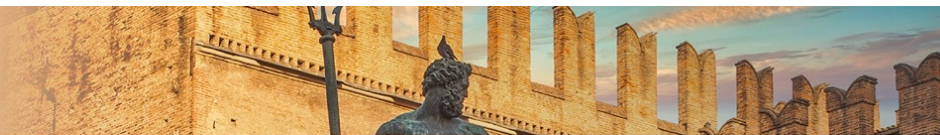
Radioterapia di precisione per un'oncologia innovativa e sostenibile

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## **Post-Prostatectomy Ablative Radiation Therapy (POPART): a Multicentric Prospective Italian Trial**

ClinicalTrials.gov Identifier NCT04831970

Dr.ssa Raffaella Lucchini



## DICHIARAZIONE

Relatore: Raffaella Lucchini

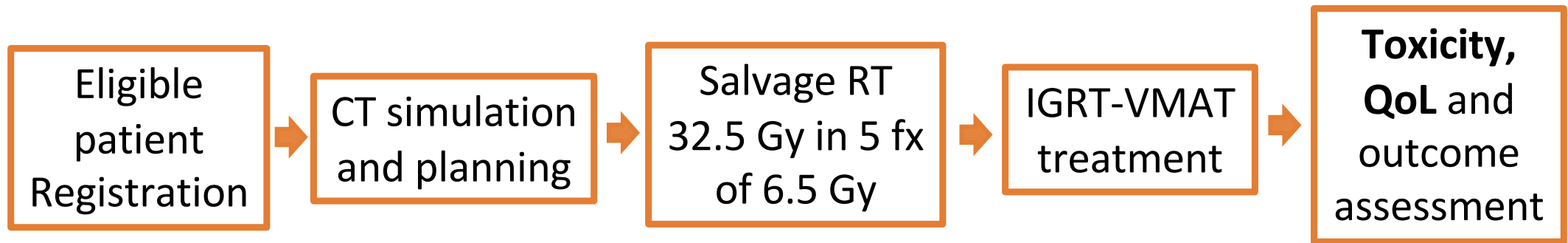
Come da nuova regolamentazione della Commissione Nazionale per la Formazione Continua del Ministero della Salute, è richiesta la trasparenza delle fonti di finanziamento e dei rapporti con soggetti portatori di interessi commerciali in campo sanitario.

- 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)**





## Multicentric Trial



Sistema Socio Sanitario



ASST Monza



Sistema Socio Sanitario



ASST Papa Giovanni XXIII



## Inclusion Criteria

- ❖ Prostate adenocarcinoma treated with radical prostatectomy
- ❖ Post-prostatectomy PSA of  $\geq 0.1$  -  $< 2$  ng/ml and/or local relapse
- ❖ No distant metastases at **PSMA PET CT** within 60 days prior to registration
- ❖ Androgen deprivation therapy allowed



## Patients and Disease Characteristics

<b>Age</b>		<b>Pathological T stage</b>	
Median	72 [range 55-82]	pT2	19 (64%)
<b>PSA pre-prostatectomy (ng/ml)</b>		pT3a	8 (26%)
Median	6,04 [range 3,30 -17,25]	pT3b	3 (10%)
<b>Gleason score</b>		<b>Positive Margins</b>	
6 (3+3)	4 (13%)	R1	11 (37%)
7 (3+4)	12 (40%)	R1 and positive apex	8 (26%)
7 (4+3)	11 (37%)	<b>Time from prostatectomy (months)</b>	
8 (4+4)	2 (6,5%)	Median	54,5 [range 7-155]
9 (4+5)	1 (3,5%)	<b>Clinical relapse</b>	
<b>ISUP Grade Group</b>		Yes	8 (26%)
1	4 (13%)	No	22 (74%)
2	12 (40%)	<b>PSA pre-SBRT (ng/ml)</b>	
3	11 (37%)	Median	0.30 [range 0.18-1.89]
4	2 (6.5%)	<b>ADT</b>	
5	1 (3.5%)	Yes	4 (13%)
		No	26 (87%)



# Anatomical reproducibility

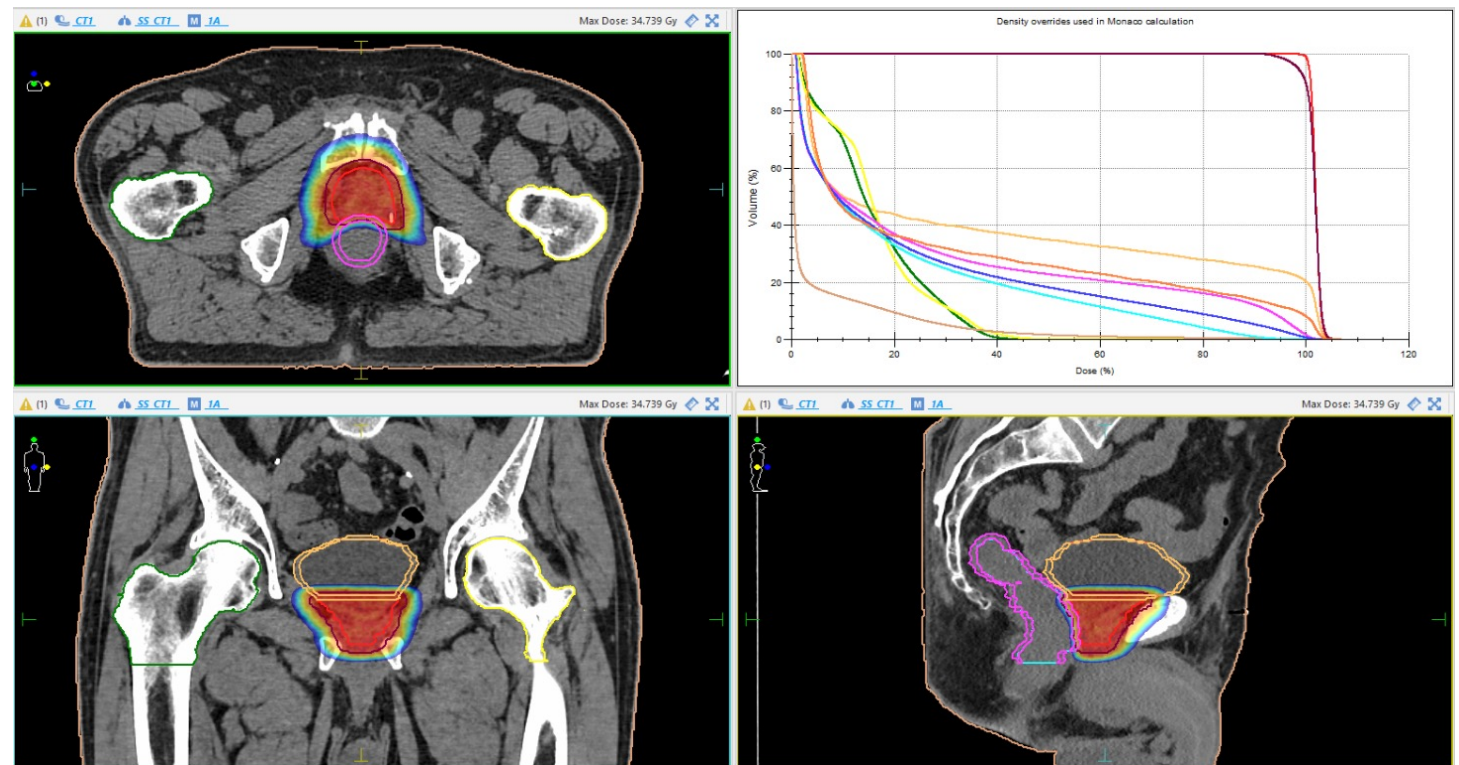
- ❖ Organ motion mitigation was obtained before simulation and each treatment fraction with:
  - A rectal microenema
  - 500 ml of still water
- ❖ CTV was delineated according to the GFRU guideline



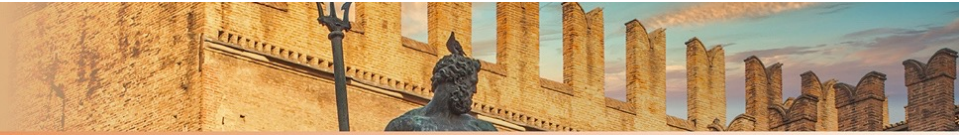


## Treatment Planning

- ❖ 32.5 Gy in 5 fractions  
(EQD<sub>2</sub>[1.5]= 74.2 Gy)
- ❖ Treatment was delivered on Linac platform with a Volumetric Modulated Arc Therapy (VMAT)
- ❖ Median CTV (cc) 29,39 [range 4.40-149.00]
- ❖ Median PTV (cc) 72 [range 14.8-250.2]

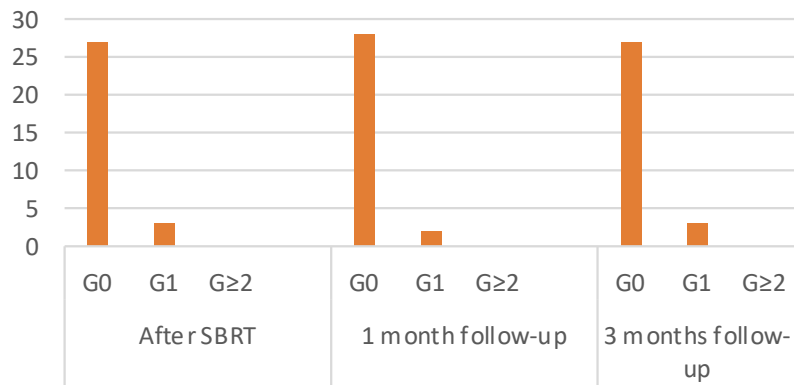




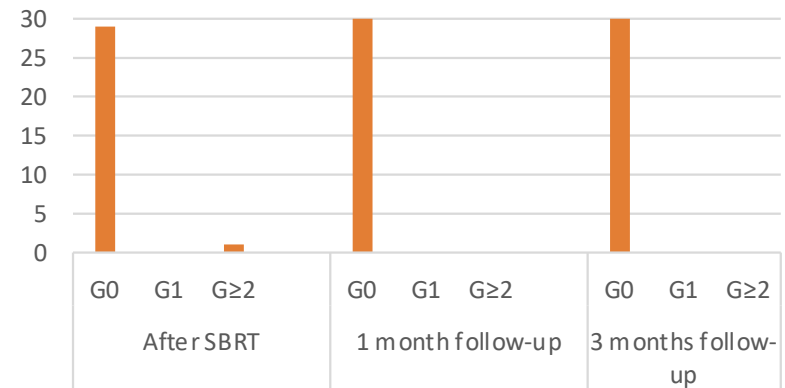


## Early Toxicity (CTCAE v.5)

Genitourinary (GU) toxicity



Gastrointestinal (GI) toxicity





## QoL (EPIC-CP) and Clinical Outcomes

	Mean ± SD score		
	Baseline	End of treatment	3 months
<b>Urinary incontinence</b>	1.6±0.1	1.8±0.1	1.6±0.1
<b>Urinary irritation/obstruction</b>	1.2±0.1	1.8±0.2	1.6±0.1
<b>Bowel symptoms</b>	0.7±0.1	1.8±0.2	0.8±0.1
<b>Sexual dysfunctions</b>	5.3±0.2	5.3±0.2	5.8±0.2
<b>Hormonal symptoms</b>	1.1±0.1	1.3±0.1	1.6±0.1

Three months after SBRT all but two patients, who progressed distantly, were found biochemically controlled with a median post-treatment PSA level of 0.07 ng/ml (range 0-0.48 ng/ml)





## Take Home Message

- ❖ Post-prostactectomy SBRT for biochemical and/or clinical relapse is a convenient and safe treatment
- ❖ No increase in short term toxicity nor significant decline in QoL was observed
- ❖ Long term results are needed to confirm these findings



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