IEO European Institute of Oncology

Associazione Italiana Radioterapia e Oncologia clinica

Società Italiana di Radiobiologia

UNIVERSITÀ DEGLI STUDI DI MILANO

SAFETY AND FEASIBILITY OF SBRT FOR THE MANAGEMENT OF ELDERLY AND FRAIL PATIENT WITH LOCALLY ADVANCED BLADDER CANCER

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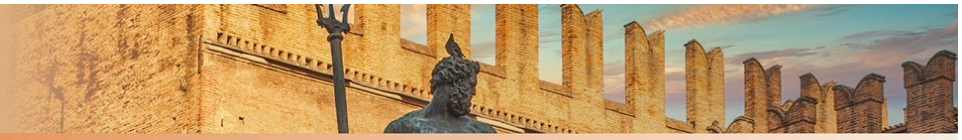


DICHIARAZIONE

Relatore: ANGELO VITULLO

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)**

BACKGROUND

Aging population

- Multipathologies
- Drug interactions
- Higher incidence of cancer

→ **Bladder cancer**

↓

Radic~~~~tments

Best supportive care

National Comprehensive Cancer Network®

BACKGROUND

Annals of Palliative Medicine.
http://dx.doi.org/10.21037/apm.2019.11.02

Editorial Commentary

Palliative radiation therapy in bladder cancer: a matter of dose, techniques and patients' selection

Barbara A. Jereczek-Fossa[1,2], Giulia Marvaso[1]

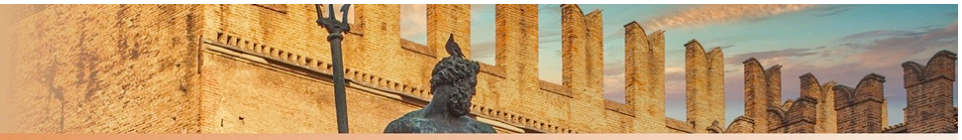
Shorten treatment course

Reduce irradiated volume

Minimize toxicity

Heal symptoms

Room for SBRT



AIMS

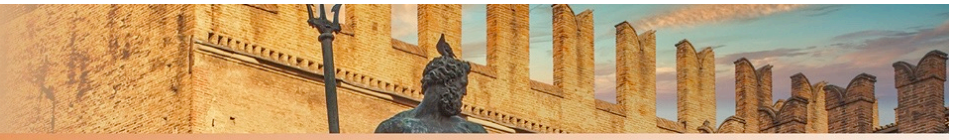
To report:

- feasibility;
- oncological outcomes;
- toxicity rates

of SBRT on gross tumour (**GT group**) or on tumour bed after TURBT (**TURBT group**) in a monocentric cohort of frail and elderly bladder cancer patients not eligible for curative treatments.

PATIENTS AND METHODS - I

- **16** patients with histologically proven diagnosis of **bladder cancer** (at every pathological stage) from 2017 to 2021
  - GT group (10 patients);
  - TURBT group (6 patients).
- **SBRT** was delivered daily, or every other day at the IEO IRCCS, Milan
  - 30 Gy / 5 fx;
  - 25 Gy / 5 fx.
- fragile and/or elderly patients, not eligible for radical treatment (cystectomy, trimodal therapy) → **ACCI** to categorize patients' comorbidities.
- Any kind of previous treatment / no concomitant systemic therapy during SBRT.



PATIENTS AND METHODS - II

- **IGRT SBRT** with 6-MV photon X beams was delivered using three different linacs (Varian Trilogy® Linear Accelerator, Accuray TomoTherapy® and BrainLab VERO® Systems);

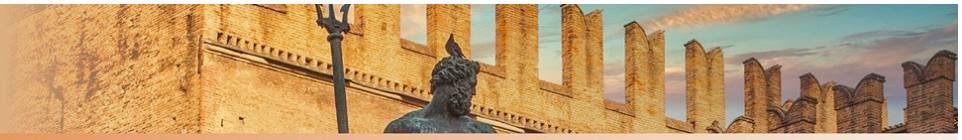
  ↳ Constraints were selected and adapted according to available literature and institutional experience.

- Evaluation of treatment response → radiological investigations and/or cystoscopy;

- Toxicity assessment → **RTOG/EORTC** v2.0 criteria;

- Local response to treatment → **RECIST** criteria

doi: 10.1016/S0360-3016(99)00559-3
doi: 10.1016/j.ejca.2008.10.026



RESULTS - I

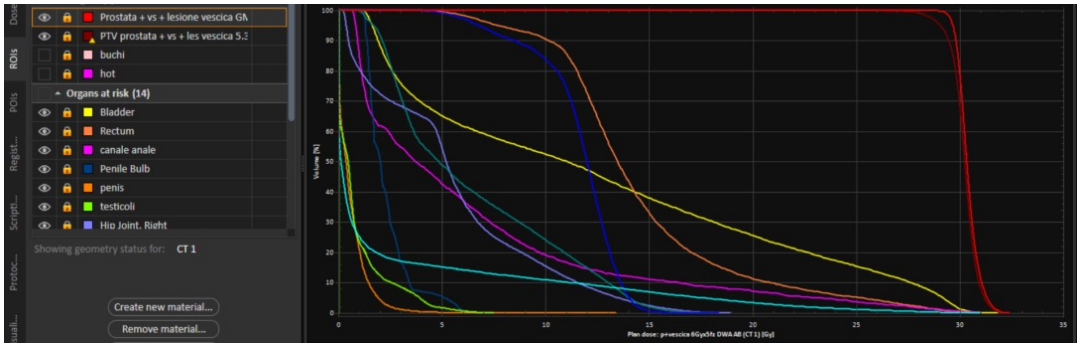
	GT group	TURBT group
median FU months (IQR)	13.3 (IQR 9.9-27.8)	10.3 (IQR 9.7-18.8)
Alive (%)	50.0	66.7
RECIST criteria	3 x CR 2 x PD 5 x no follow up	3 x CR 1x SD 1 x PD 1 x no follow up
ACCI (IQR)	8 (8.3 – 9.8)	8 (8 – 11)

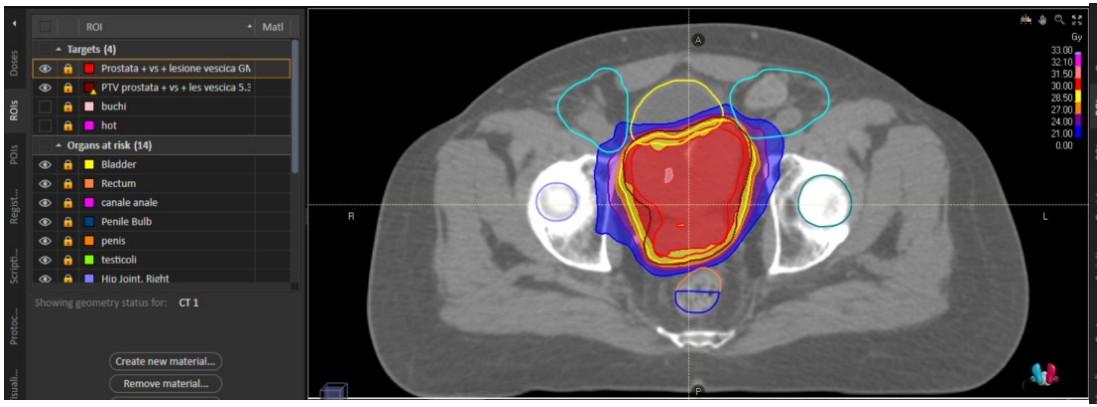
- **100%** 30-days and 3-months overall survival among both groups;
- **62.5%** ≥ 12 months overall survival;
- **31.5 %** ≥ 12 months local control (25% censored);

doi: 10.1016/j.ijrobp.2019.06.2541
doi: 10.21873/invivo.11718

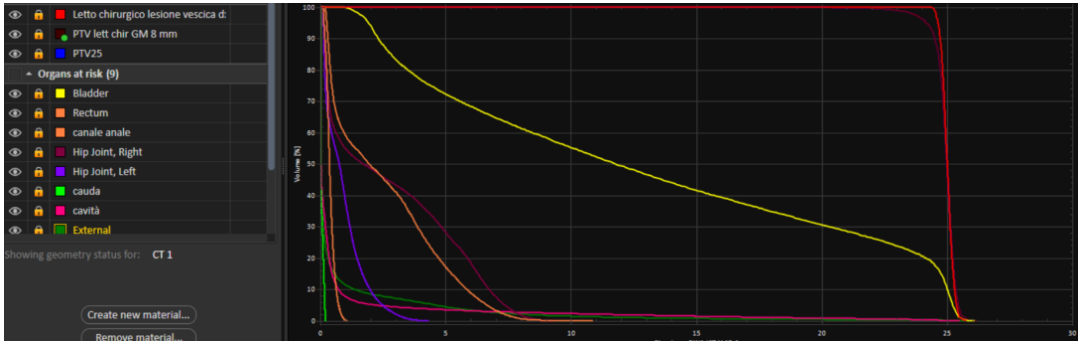
RESULTS - II

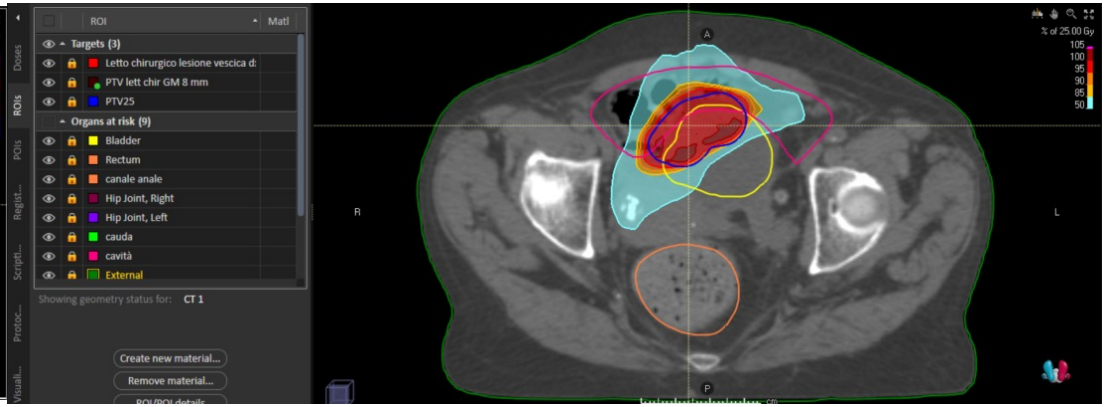
- GT group patient





- TURBT group patient





RESULTS - III

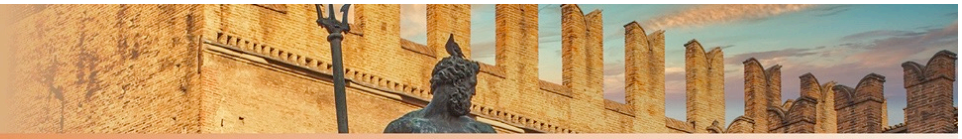
- GT group patient

		Grade	n. (%)
acute toxicity	GI	G0	8 (80.0)
		G1	1 (10.0)
		G2	1 (10.0)
	GU	G0	6 (60.0)
		G1	1 (10.0)
		G2	3 (30.0)
chronic toxicity*	GI	G0	6 (100)
	GU	G0	3 (50.0)
		G1	2 (33.3)
		G4	1 (16.7)

- TURBT group patient

		Grade	n. (%)
acute toxicity	GI	G0	6 (100)
	GU	G0	5 (85.7)
		G1	1 (16.7)
chronic toxicity§	GI	G0	5 (100)
	GU	G0	4 (80.0)
		G1	1 (20.0)

- § data available for five out of six patients; * data available for six out of ten patients.



LIMITATIONS AND OPEN QUESTIONS

- Need for multicentric, prospective, randomized trials;
- Small patients' sample;
- Need for regular and longer follow up;
- Use of objectifiable scales (i.e., QoL);
- Alpha – beta ratio of bladder cancer → BED → SBRT schedules.

CONCLUSIONS

- **1st data** on SBRT on primary bladder cancer in supportive care only candidate patients;
- Technical and clinical feasibility both in GT and TURBT group → compliance with dose constraints;
- Acceptable toxicity profile → only 1 G4 GU toxicity (after 3 pelvic RT).

https://doi.org/10.1016/j.ijrobp.2019.06.2541

BLADDER CANCER AWARENESS

movember

Thanks for your attention!