



## Castration resistance and previous salvage therapy impact on outcomes of lymph-nodal metastatic prostate cancer patients treated with salvage ENRT and PET guided SIB

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## DICHIARAZIONE

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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)**
- Altro: Partecipazioni a congressi sponsorizzate da Janssen, AB Medica, Ipsen



### Aims:

Choline and PSMA PET/CT have anticipated the diagnosis of prostate cancer (PCa) lymph-nodal metastases (LNM). Generally, patient population is heterogeneous including either **hormono-sensitive (HSPC)** or **castration-resistant patients (CRPC)**, **at the first or second relapse (already treated with** adjuvant or salvage radiotherapy, **ART/SRT)**, who could have different prognoses. Here we report long-term outcomes of our cohort of patients treated with salvage extensive-nodal radiotherapy (ENRT) considering these differences.

### Methods:

- ❖ From **02/2005 to 04/2021**, **192 PCa patients** were treated for LNM with **ENRT** at a median total dose (TD)= 51.8 Gy/28 fr, and Choline/PSMA PET/CT guided simultaneous integrated boost (**SIB**) to a median TD= 65.5 Gy.
- ❖ **179 patients** were previously **treated with surgery**, and **114** of them **with ART/SRT**.
- ❖ Median age at relapse was 70.0 (50.2-87.4) years.
- ❖ Median PSA was 2.09 (0.18-187.0) ng/ml.
- ❖ *Median number of PET+ LNM was 2 (1-20).*
- ❖ **Androgen Deprivation Therapy** was prescribed for 100 patients, for a median of 25 months, not prescribed for 41, and **51 were CRPC**.

## Results:

- ❖ Median follow up: 62 (4.1-171.2) months.
- ❖ Median PSA after treatment: 0.05 (0.0-5.05) ng/ml
- ❖ 64.6 % of patients presented biochemical relapse
- ❖ 30.2% clinical relapse (**only 4.7% in the field of SRT**)
- ❖ 43.2% were dead (**22.4% from prostate cancer**).

## Conclusions

In our large cohort of patients treated with ENRT+ Choline/PSMA PET/CT guided SIB for LNM, with a long follow-up, **CRPC patients (who were generally not at the first relapse) and patients with second relapse after surgery already treated with ART/SRT have a statistically significant worse evolution** than patients still HSPC, or at the first relapse after surgery.

Table 1. Kaplan Meyer estimates of biochemical relapse-free (bRFS), disease-free (DFS) and overall survival (OS) in HSPC vs CRPC and in the 179 operated on patients with first relapse (without previous RT) vs second relapse (with previous ART/SRT)

bRFS years	HSPC vs CRPC (192 patients)			First relapse vs second relapse after surgery (179 operated on patients)		
	HSPC (%)	CRPC (%)	p	1°relapse (%)	2°relapse (%)	p
2	71.8	28.8	<0.0001	78,9	48,2	<0.0001
3	63.1	17.7		71.2	37.9	
5	45.7	8		54.1	23.8	
DFS years						
2	91.9	73.9	0.03	95.9	82.2	0.03
3	84.5	69.1		92.8	72.2	
5	75.3	59		84.9	63.9	
OS years						
2	92.1	88.2	<0.0001	94.5	87.6	0.02
3	87.4	66.2		84	79.8	
5	76.9	50		77	66.1	