Associazione Italiana Radioterapia e Oncologia clinica

Società Italiana di Radiobiologia

RADIOTERAPIA STEREOTASSICA CON SISTEMA CYBERKNIFE ® PER TUMORE DELLA PROSTATA A RISCHIO BASSO E INTERMEDIO. OUTCOMES CLINICI E TOSSICITÀ DEL TRIAL CYPRO.

STEREOTACTIC BODY RADIOTHERAPY WITH CYBERKNIFE® SYSTEM FOR LOW-AND INTERMEDIATE-RISK PROSTATE CANCER. CLINICAL OUTCOMES AND TOXICITIES OF CYPRO TRIAL

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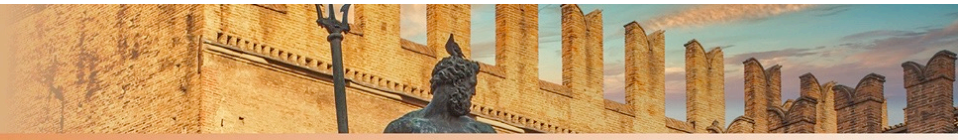


DICHIARAZIONE

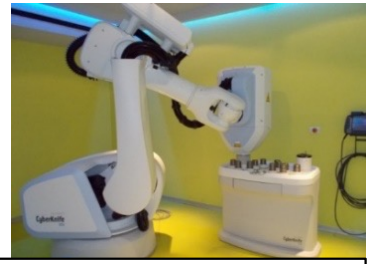
Relatore: Valentina Borzillo

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

	Total patients (122)	Patients treated with Dose 35Gy/5fz (71)	Patients treated with Dose 36.25Gy/5fz (51)	p-value
Age at first RT visit (ys) Mean ± SD Median (range)	70.3 ± 6.6 71.5 (46-88)	70.4 6.8 72.0 (46-84)	70.2 6.3 71.0 (56-88)	0.614
Age at first RT visit n (%) ≤ 65 66-70 >70	26 (0.21) 29 (0.24) 67 (0.55)	13 (0.18) 17 (0.24) 41 (0.58)	13 (0.25) 12 (0.24) 26 (0.51)	0.616
PSA level at diagnosis (ng/ml) Mean ± SD Median (range)	7.7 ± 3.5 6.9 (1.91-16.60)	8.1 ± 3.7 7.0 (2.49-16.50)	7.3 ± 3.2 6.8 (1.91-16.60)	0.202
PSA level at diagnosis n (%) ≤ 10 >10 and < 20	98 (0.80) 24 (0.20)	54 (0.76) 17 (0.24)	44 (0.86) 7 (0.14)	0.242
PSA level pre-treatment (ng/ml) Mean ± SD Median (range)	6.7 ± 4.0 6.5 (0.07-17.28)	6.5 ± 4.3 6.4 (0.07-17.28)	7.1 ± 3.6 6.9 (0.19-15.22)	0.357
PSA level pre-treatment n (%) ≤ 10 >10 and < 20	99 (0.81) 23 (0.19)	59 (0.83) 12 (0.17)	40 (0.78) 11 (0.22)	0.678
Risk group n (%) Low Intermediate	53 (0.43) 69 (0.57)	31 (0.44) 40 (0.56)	22 (0.43) 29 (0.57)	1.000
Hormone treatment n (%) Yes No	26 (0.21) 96 (0.79)	24 (0.34) 47 (0.67)	2 (0.04) 49 (0.96)	<0.001
TURP before SBRT n (%) Yes No	8 (0.07) 114 (0.93)	6 (0.08) 65 (0.92)	2 (0.04) 49 (0.96)	0.531
Site RT n (%) Prostate Prostate+SV	53 (0.43) 69 (0.57)	31 (0.44) 40 (0.56)	22 (0.43) 9 (0.57)	1.000

From February 2013 to December 2019



Total Dose:
35 Gy or 36.25 Gy in 5fx
isodose line 80%

122 low and intermediate-risk PC patients were treated with Cyberknife System (CK)

- Biochemical failures (BF)/ biochemical disease-free survival (bDFS)
- Rectal and urinary acute/late toxicity
- Quality of life (QOL)

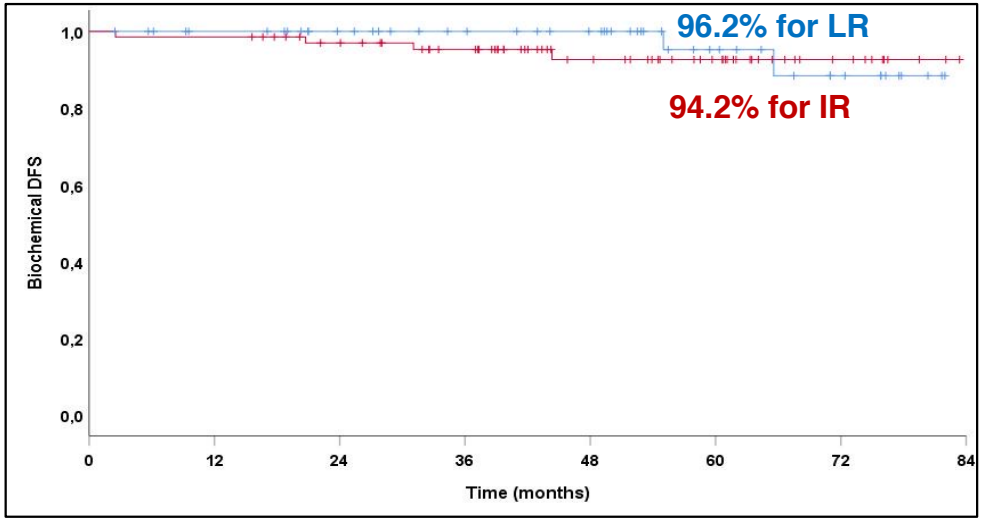
EORTC QLQ-PR25

INTERNATIONAL PROSTATE SYMPTOM SCORE IPSS

EORTC QLQ-C30

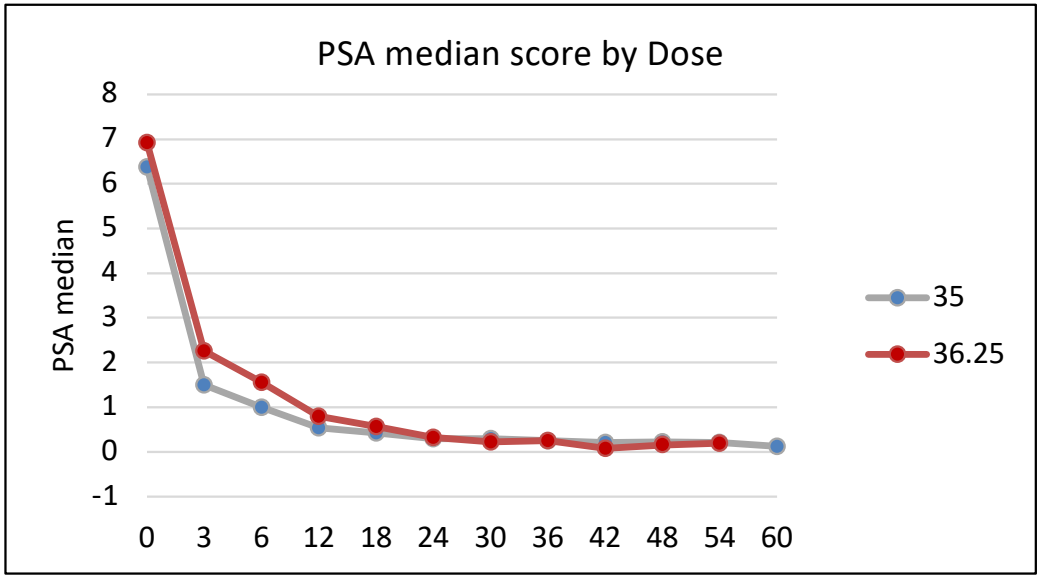
INTERNATIONAL INDEX OF ERECTILE FUNCTION-5 IIEF5

The median follow-up was 4 years (range, 3-60 months)



Biochemical disease-free survival in Low-risk group (blu line) and in intermediate-risk group (red line)

In all patients we recorded a median nadir PSA value of 0.13 ng/mL

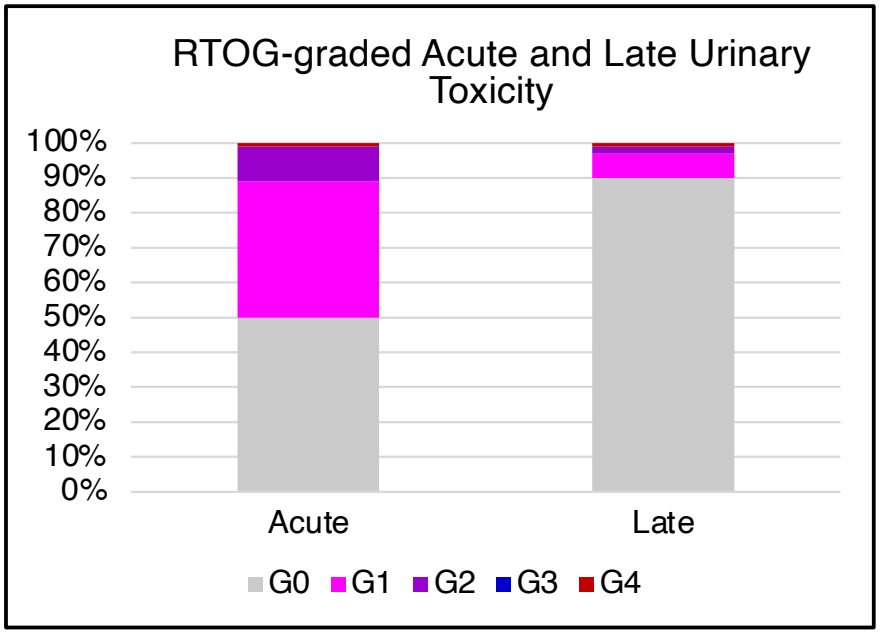


At two years post-treatment:

- **in the group of patients treated with Dose 35Gy/5fz the median pre- treatment PSA of 6.38 ng/ml (range 0.07-17.28 ng/ml) declined to a median of 0.29 ng/ml (range, 0.0-1.5 ng/ml);**

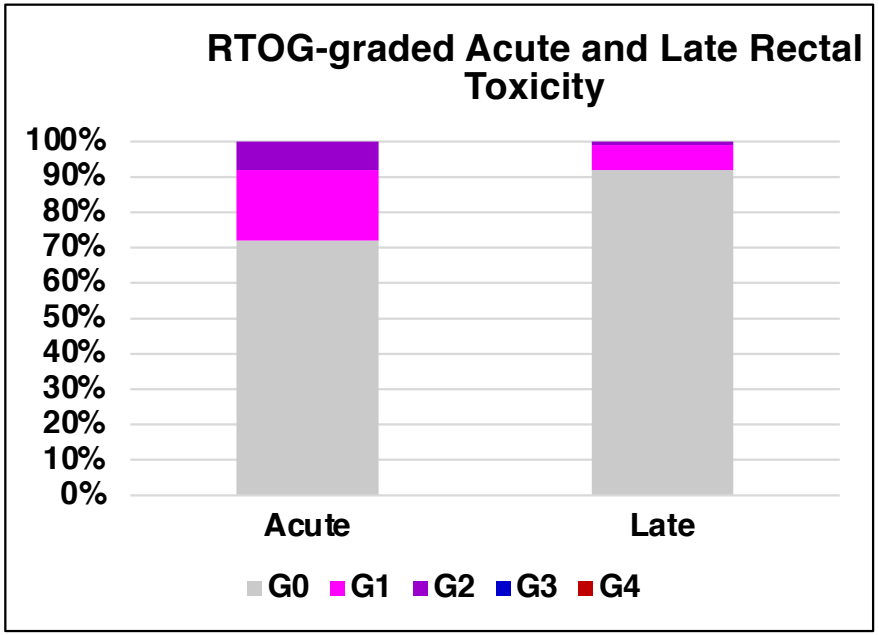
- in the group of patients treated with Dose 36.25Gy/5fz the median pre-treatment PSA of 6.92 ng/ml (range 0.19-15.22 ng/ml) declined to a median of 0.32 ng/ml (range, 0.02-2.54 ng/ml)

Urinary toxicity



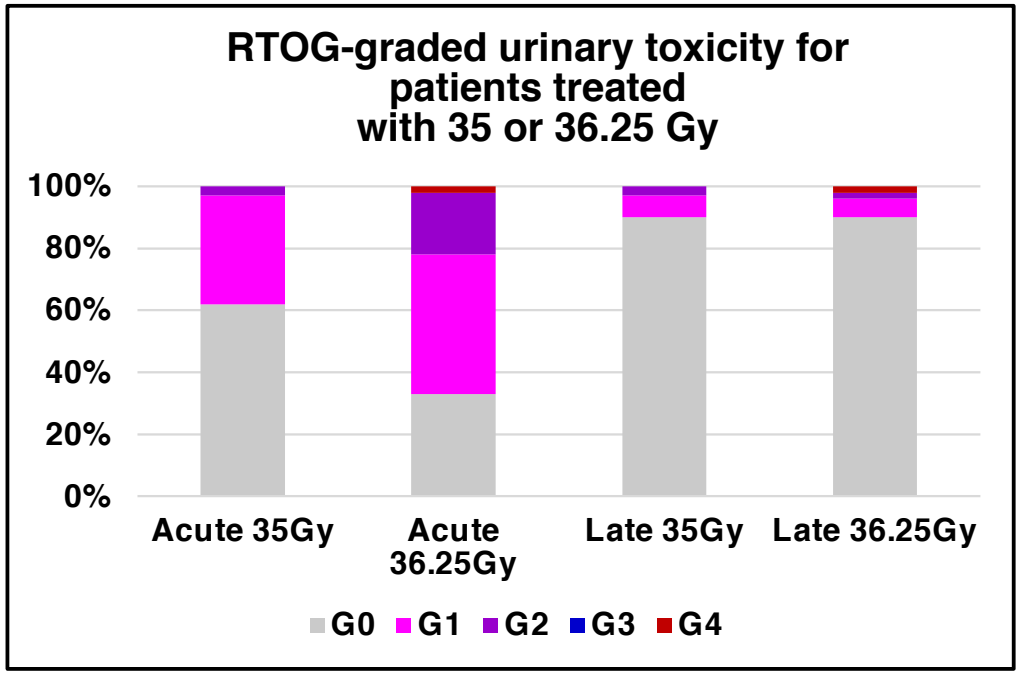
Urinary toxicity >G2 was: acute G3 0% and G4 1%; late G4 1%.

Rectal toxicity

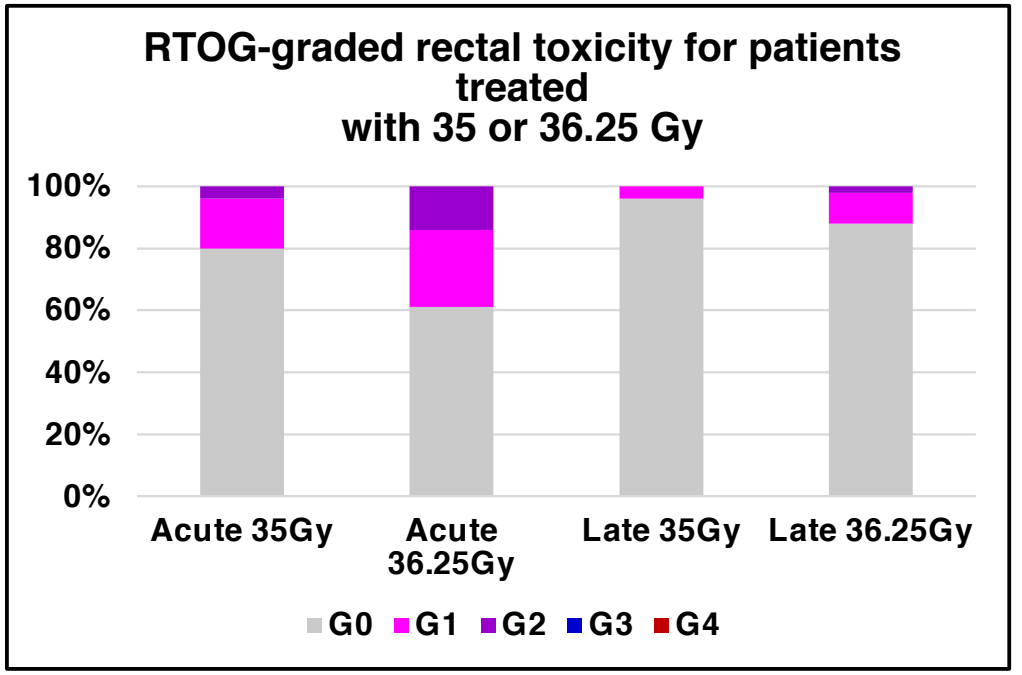


Acute and late rectal toxicity >G2 was 0%.

Urinary toxicity for groups



Rectal toxicity for groups



There were no significant differences in toxicity or quality of life between the two dose groups.

For erectile dysfunction, we found differences based on the patients age but not by the dose.

Conclusion:

CK SBRT is a valid therapeutic option in the treatment of patients with LR-IR PC with good biochemical control and QOL.

We found no differences in biochemical control and toxicities in relation to dose.