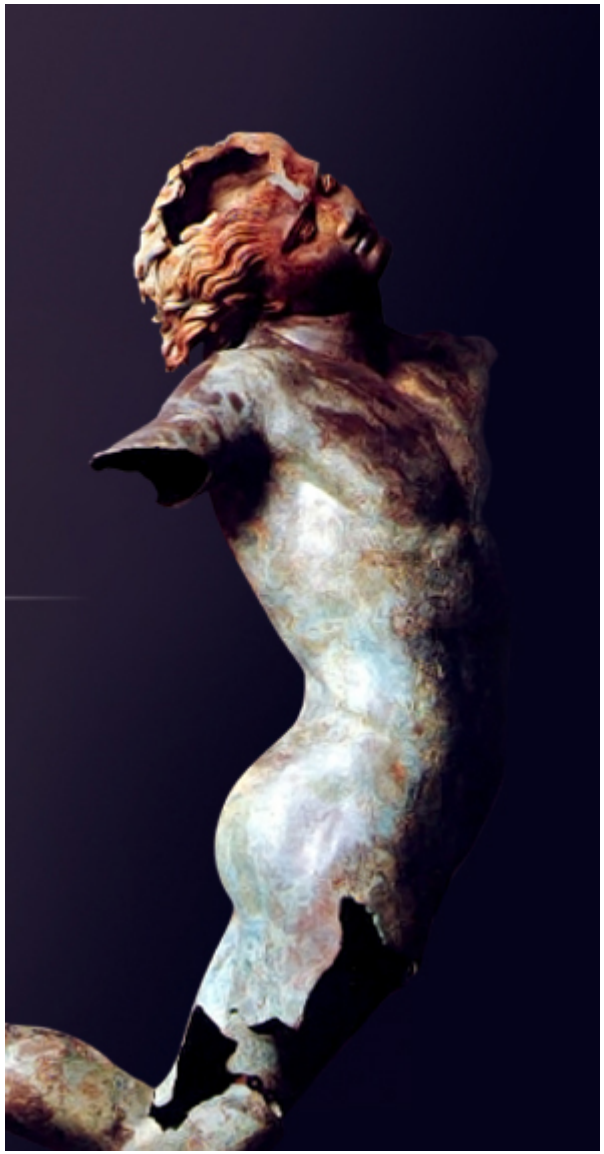
SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA
Azienda Ospedaliera di Reggio Emilia
Arcispedale S. Maria Nuova
Istituto in tecnologie avanzate e modelli assistenziali in oncologia
Istituto di Ricovero e Cura a Carattere Scientifico

Hypofractionated image-guided radiotherapy for intermediate and high-risk prostate cancer: Outcomes of 106 patients treated at Reggio Emilia Hospital

Dr.ssa C. Bassi

Radiation Oncology Unit, ASMN, Reggio Emilia

Taormina, 29 ottobre 2013



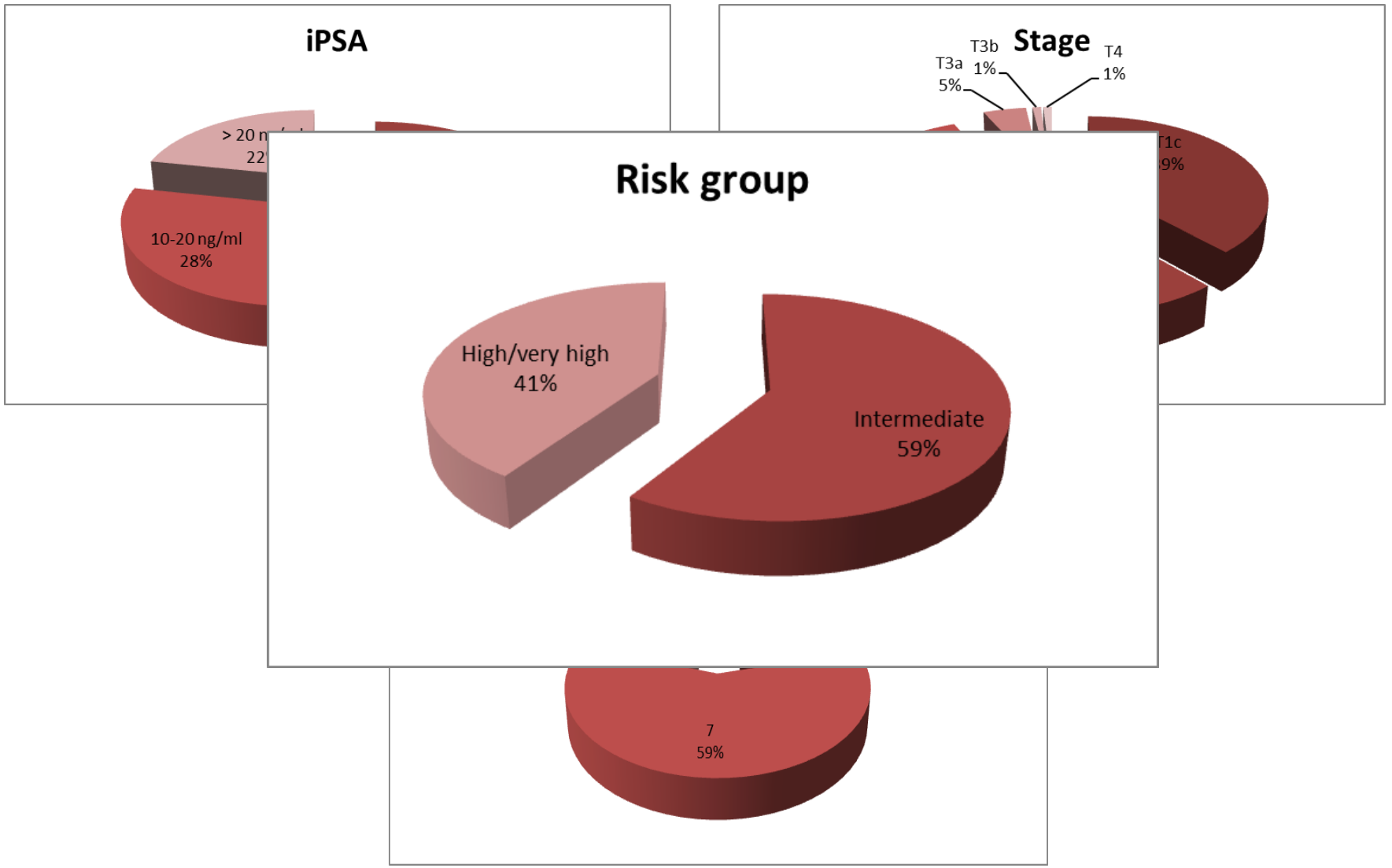
XXIII CONGRESSO
AIRO
Giardini Naxos - Taormina, 26 - 29 ottobre

Materials and methods

- January 2008 - December 2011
- 106 patients with intermediate- or high-risk prostate cancer treated at ASMN (Reggio Emilia) with External-Beam Radiotherapy
- Radical treatment with IGRT using hypofractionated IMRT and simultaneous integrated boost with Tomotherapy
- The toxicity was scored according to the Common Terminology Criteria for Adverse Events (CTCAE) version 4.0
- All patients were followed during radiation therapy and every 6 months for toxicity rating and PSA
- Median follow-up: 35,6 months (range: 8,8-65,2)

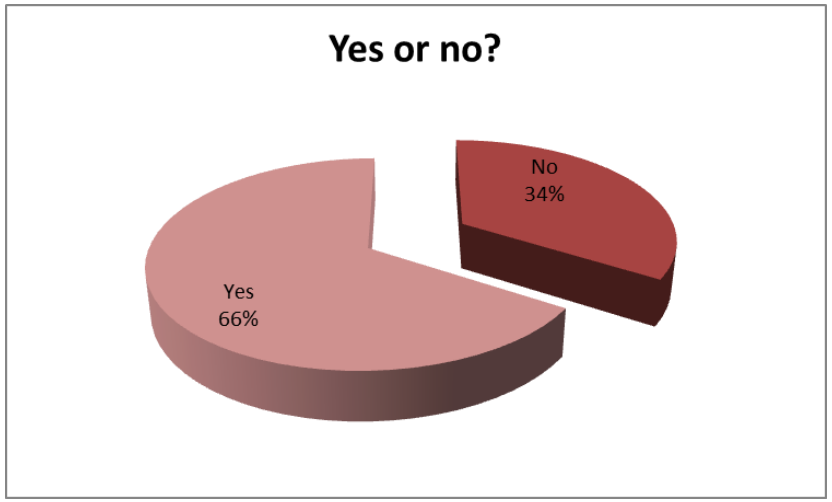
Camilla.Bassi@asmn.re.it

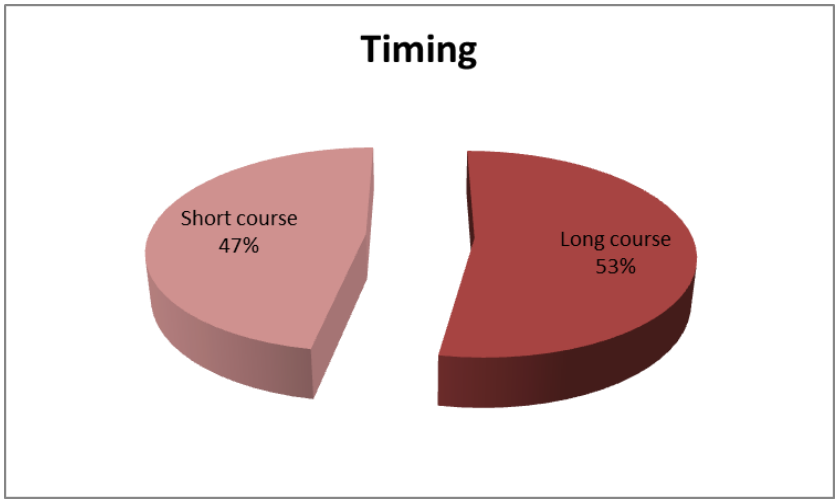
Patients characteristics (1)

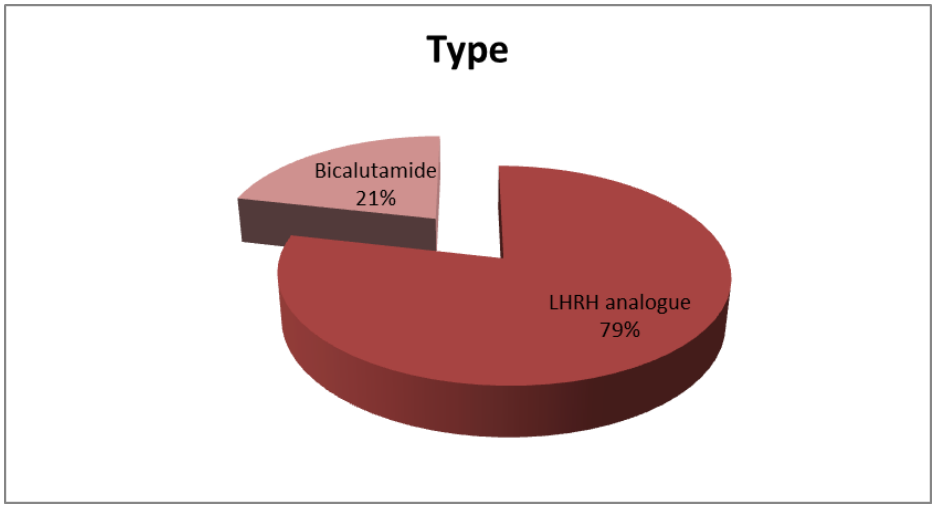


Camilla.Bassi@asmn.re.it

Hormonal therapy



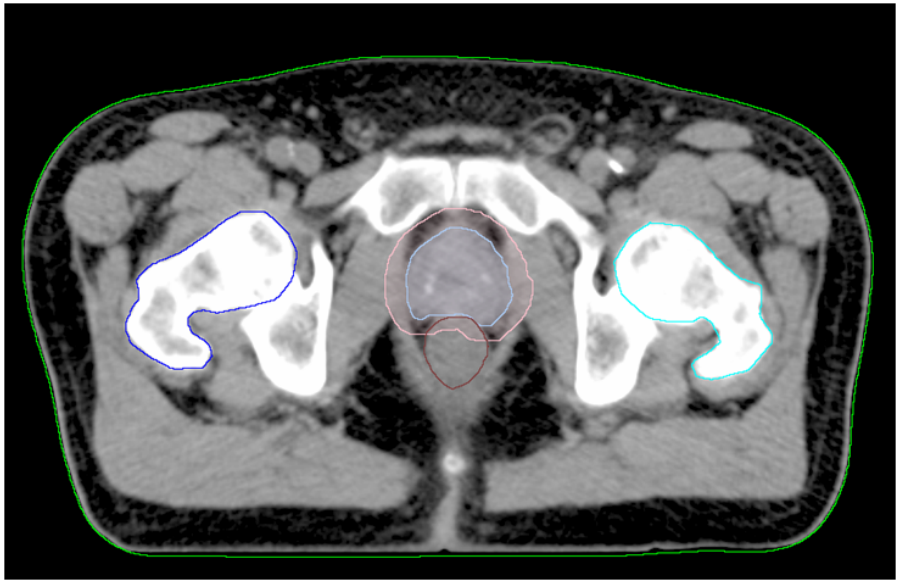




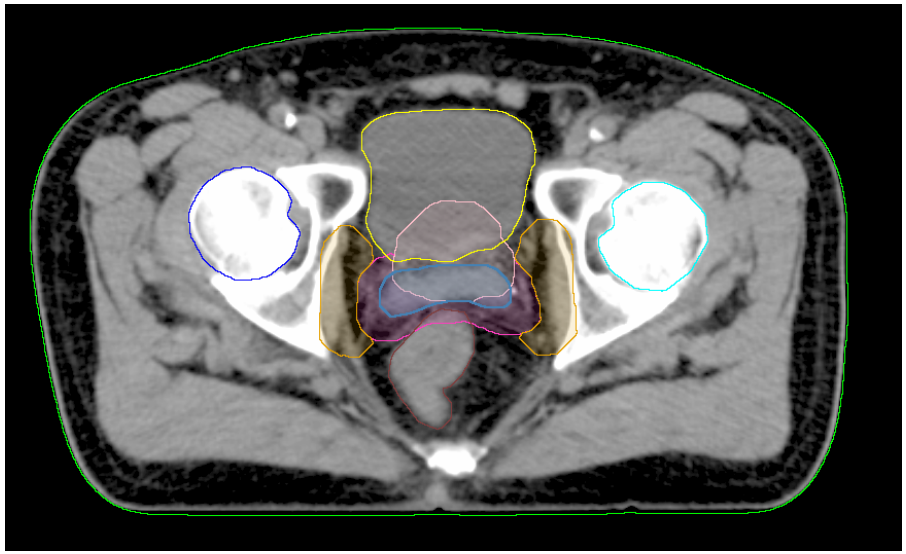
Camilla.Bassi@asmn.re.it

Radiation volumes (1)

- CTV1: prostate



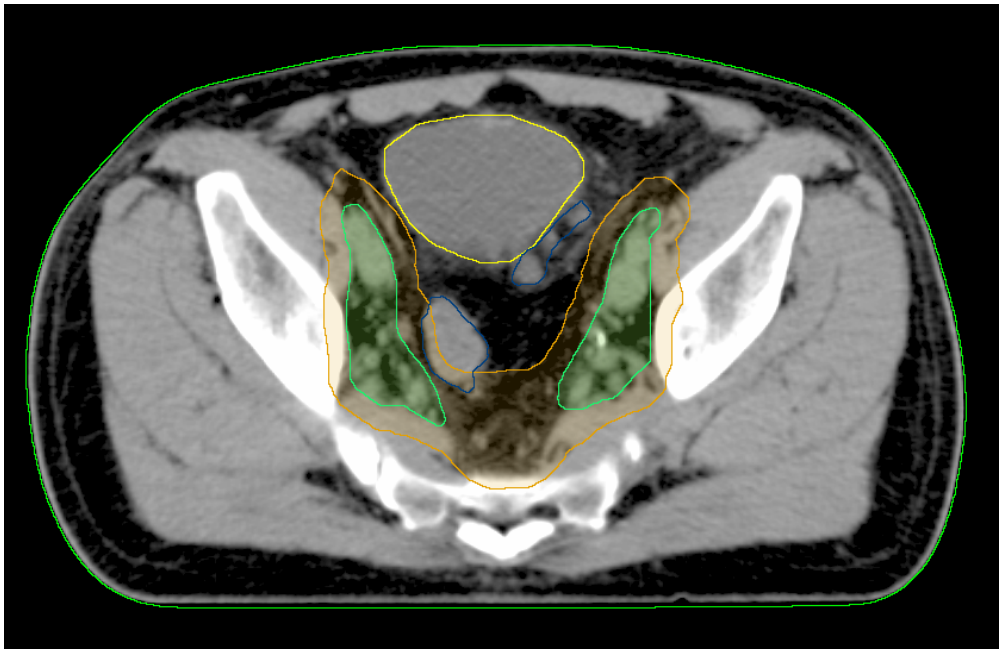
- CTV2: seminal vesicles



Camilla.Bassi@asmn.re.it

Radiation volumes (2)

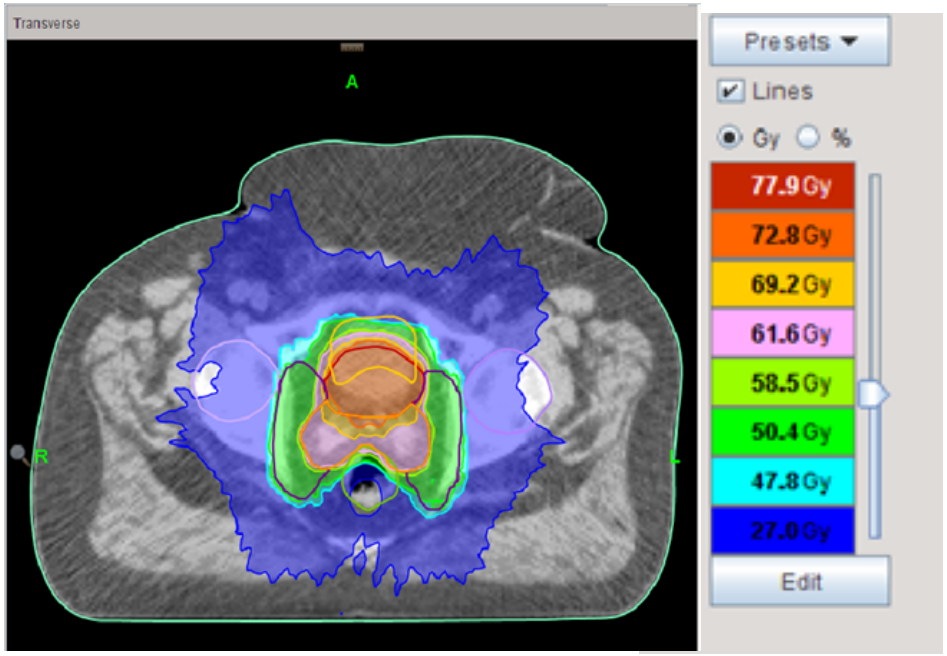
- CTV3: pelvic nodes



- CTVs were expanded to PTV by 0.8 cm in all directions except posterior direction (0.5 cm)

Camilla.Bassi@asmn.re.it

Radiation doses



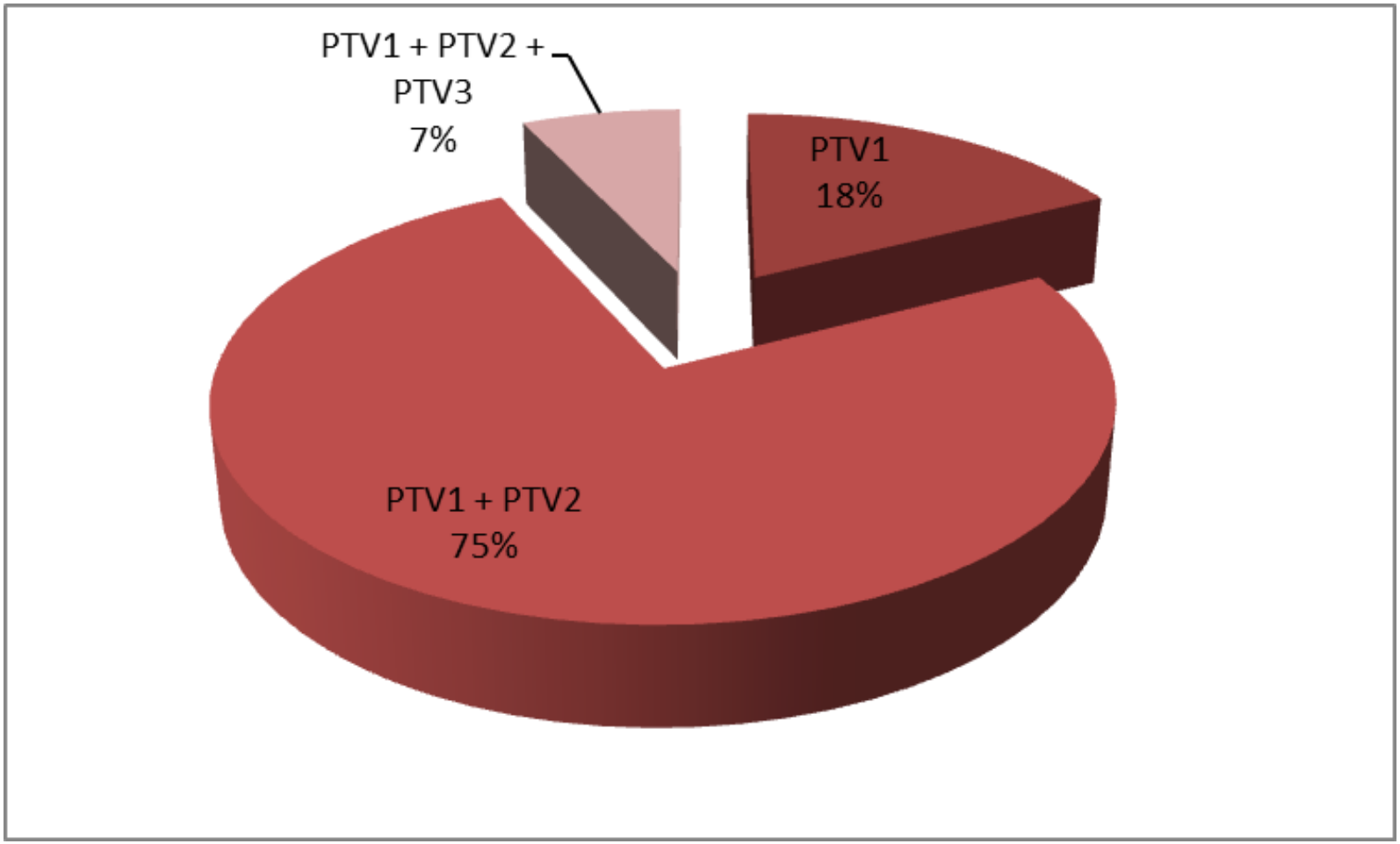
- Intermediate risk patients

  PTV=PTV1→70-72.8 Gy + PTV2→56-61.6 Gy
- High risk or N+ pelvic patients

  PTV=PTV1 (70-72.8 Gy) + PTV2 (56-61.6 Gy) + PTV3 (50,4 Gy) plus a nodal boost on N+ (63 Gy)

Camilla.Bassi@asmn.re.it

Radiation treatments



Camilla.Bassi@asmn.re.it

Investigated outcomes

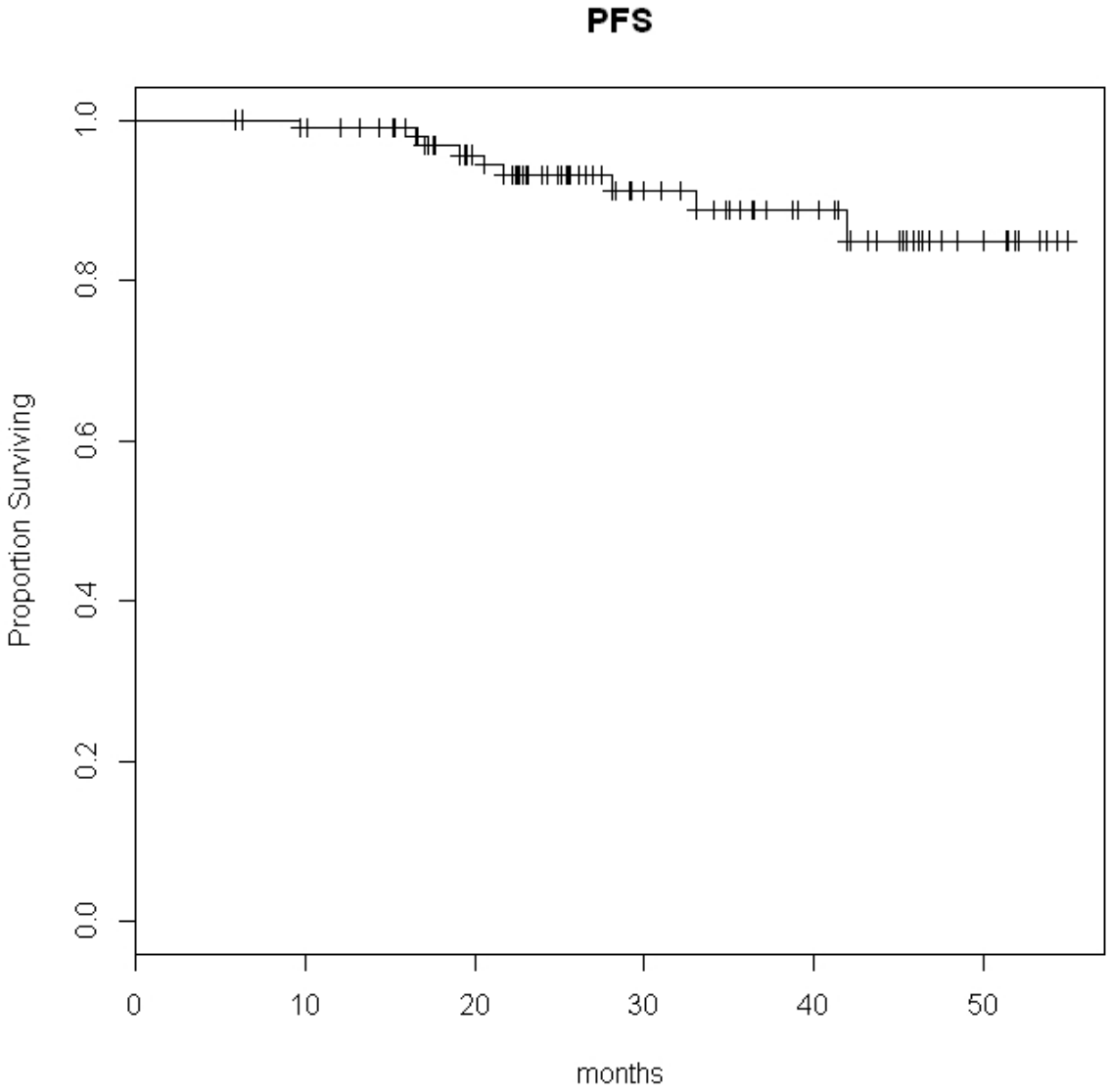
Hypofractionated image-guided radiotherapy for intermediate- and high-risk prostate cancer: Outcomes of 106 patients treated at Reggio Emilia Hospital

We evaluated

- PSA rating
- Early urinary and rectal toxicity
- Late urinary and rectal toxicity

Camilla.Bassi@asmn.re.it

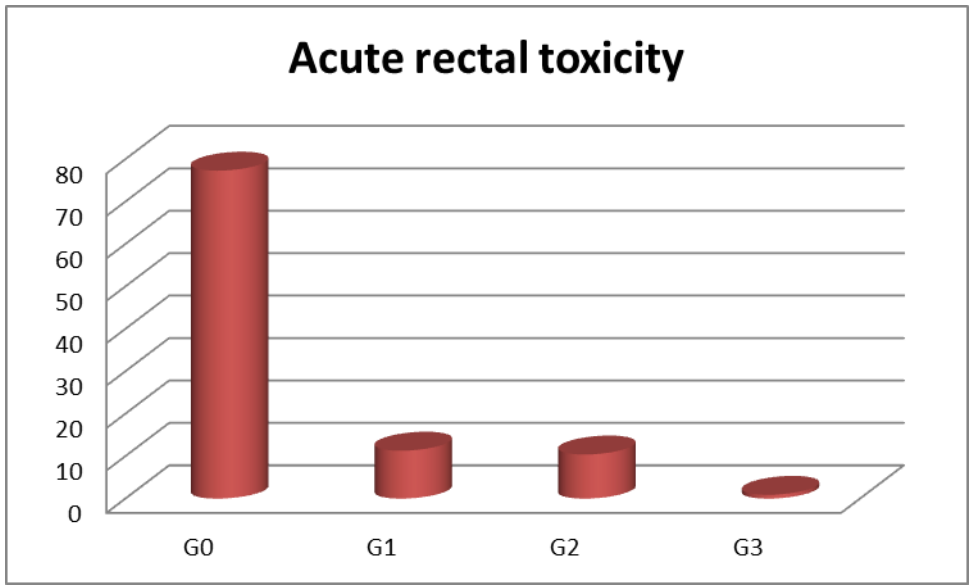
Biochemical relapse-free survival



Camilla.Bassi@asmn.re.it

Acute rectal toxicity

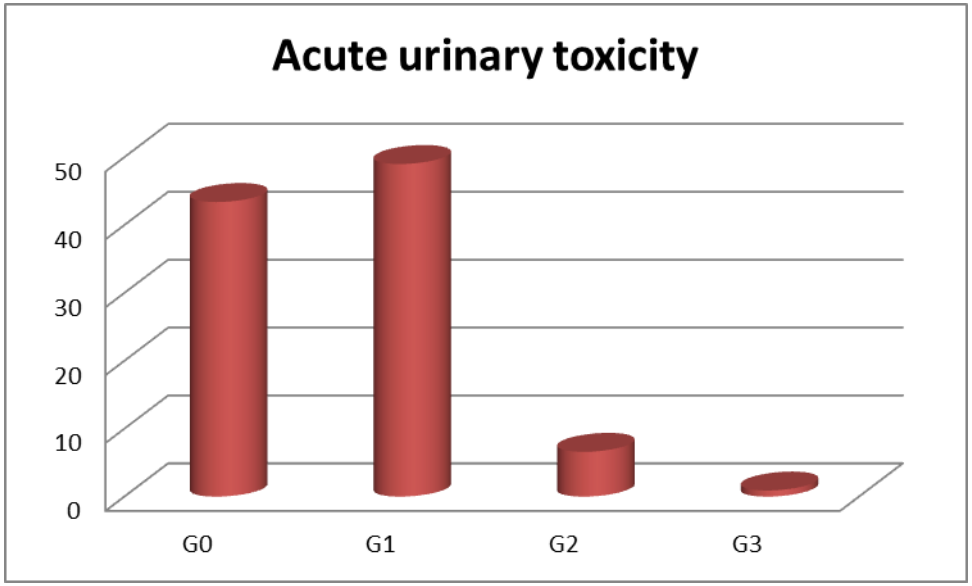
Grade	N (%)
G0	82 (77,3)
G1	12 (11,3)
G2	11 (10,4)
G3	1 (0,9)



Camilla.Bassi@asmn.re.it

Acute urinary toxicity

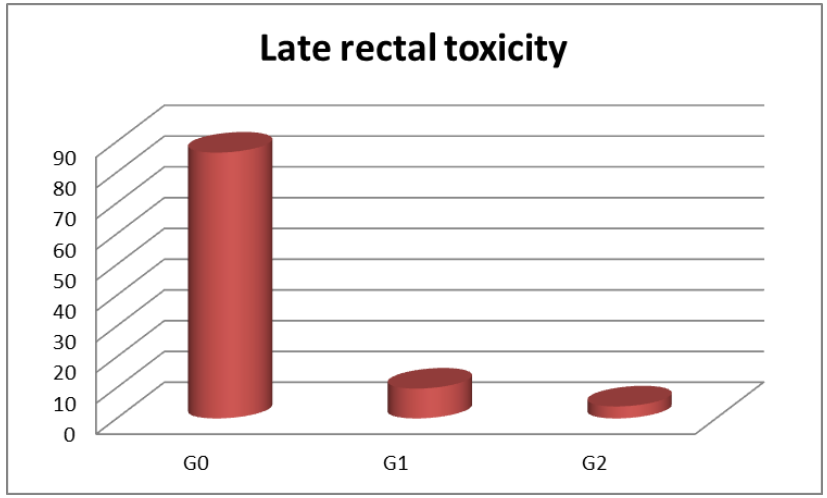
Grade	N (%)
G0	46 (43,4)
G1	52 (49)
G2	7 (6,6)
G3	1 (0,9)

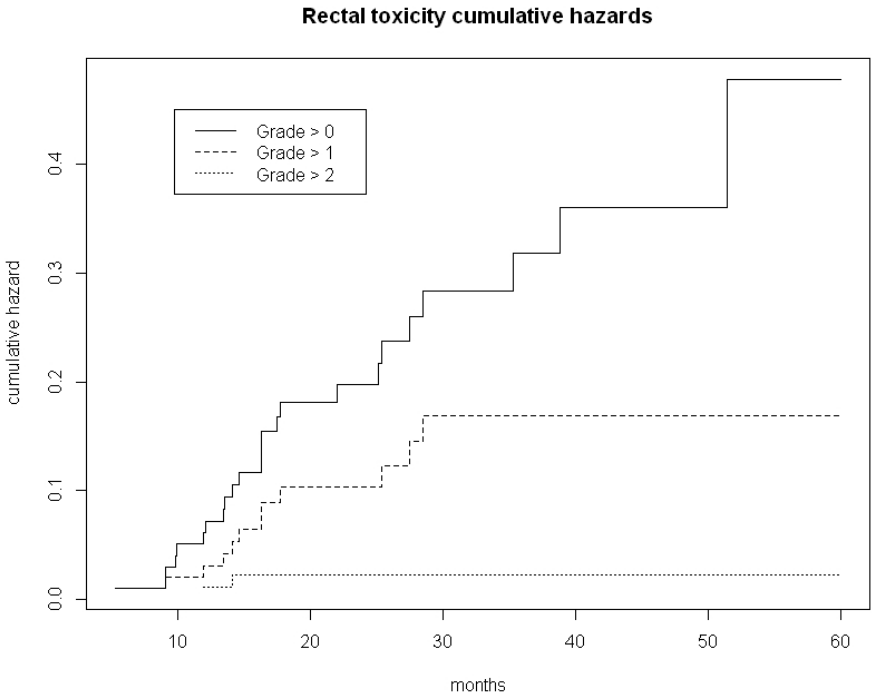


Camilla.Bassi@asmn.re.it

Late rectal toxicity

Grade	N (%)
G0	89 (86,4)
G1	10 (9,7)
G2	4 (3,9)

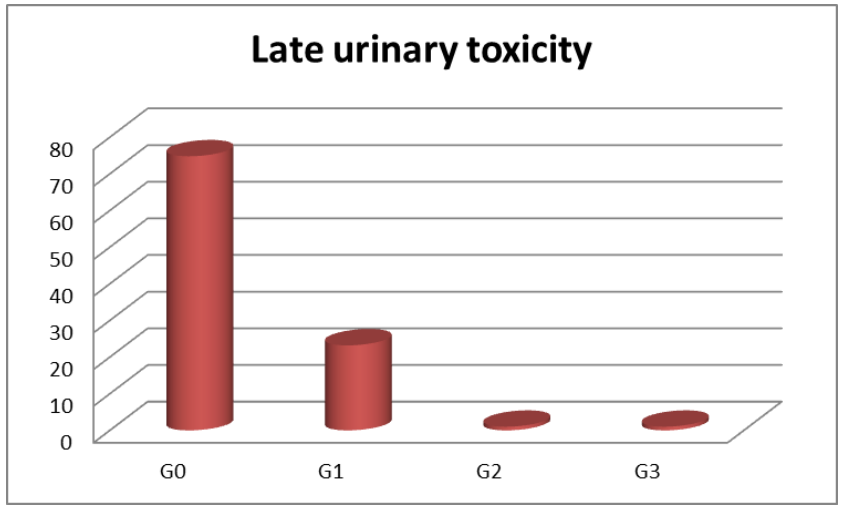


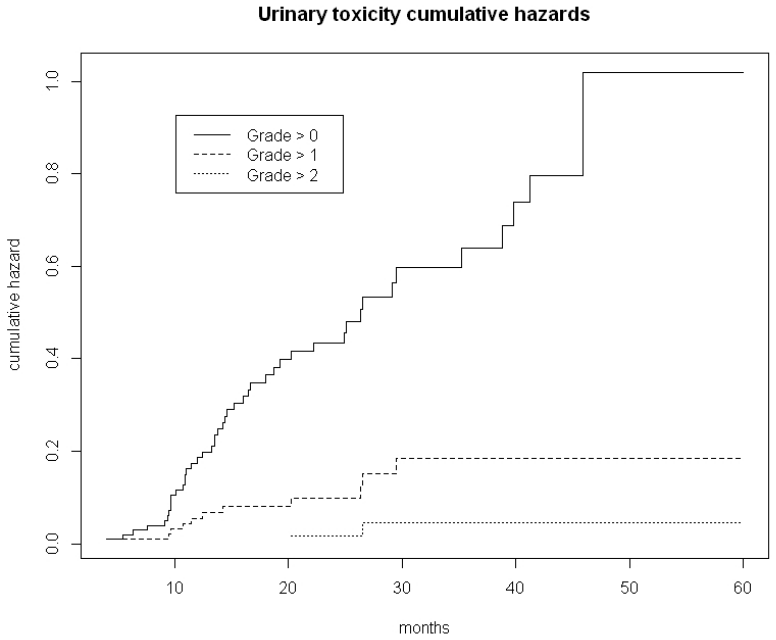


Camilla.Bassi@asmn.re.it

Late urinary toxicity

Grade	N (%)
G0	77 (74,8)
G1	24 (23,2)
G2	1 (1)
G3	1 (1)





Camilla.Bassi@asmn.re.it

Conclusions

- The hypofractionation schedule used is clinically feasible and well tolerated. The preliminary results in terms of tumor control and late effects are encouraging, reporting a good biochemical control, a low rate of rectal and urinary late toxicity, and confirm the results of literature.
- Longer follow-up is needed to determine if this low rate of toxicity will be translated in a persistent low rate of late toxicity.

Camilla.Bassi@asmn.re.it

Camilla.Bassi@asmn.re.it