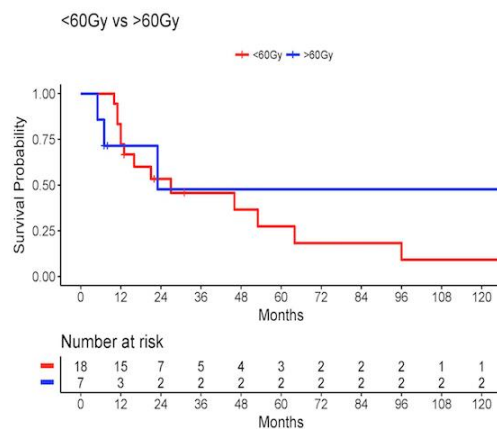


Patients characteristics (n=25)		
Sex ratio (M/F)	N	20/5
Age	Median (min – max)	59 (45-84)
Performance Status (OMS)	0 1	13 12
BMI	Median (min – max)	22.2 (17.9-35.5)
Primary tumor		
Primary Tumor location	Oropharynx	8
	Occult primary	8
	Oral cavity	4
	Larynx	3
	Nasopharynx	1
	Hypopharynx	1
Primary treatment	EBRT alone	21
	EBRT + BT	4
	Chemotherapy	12
	Surgery	18
Primary RT dose (Gy)	EBRT alone: Median (min – max)	62 (50-70)
	EBRT + BT: Median (min – max)	65 (50-72)
Dose at the recurrent/2 nd tumor volume (Gy)	EBRT + BT: Median (min – max)	50 (50-70)
Second or recurrent tumor		
Recurrent/ new	Recurrent	4
	2nd cancer	21
Delay (1 st – salvage RT) (Months)	Median (min, max)	56 (10-212)
Tumor location	Base of tongue	12
	Mobile tongue	6
	Floor of the mouth	2
	Tonsil	2
	Vallecula	2
	Soft palate	1
T stage	T1 (<2 cm)	7
	T2 (2-4 cm)	11
	T3 (> 4 cm)	3
	T4 (adjacent organs)	1
	Tx	3
N stage	N0	21
	N+	2
	Nx	2
Salvage Treatment		
Surgery	Total	22
	R2	1
	R1	18
	R0	2
	RX	1
Chemotherapy	Neoadjuvant	3
	Concomitant with EBRT	1
Radiotherapy	BT alone	15
	EBRT + BT	10
Brachytherapy	LDR (N)	18
	- # loops: median (min, max)	3 (2, 5)
	PDR (N)	7
	- # of catheters: median (min, max)	6 (4,8)
RT dose (Gy)	BT alone: Median (min – max)	45(15-64)
	EBRT: Median (min – max)	36(12-60)
	EBRT + BT: Median (min – max)	57 (40–70)
	Cumulative dose: median (min, max)	110 (90-140)
Delay EBRT – BT (days)	Median (min, max)	16(-36-21)



Conclusion

Salvage brachytherapy may offer a curative option for selected patients with an acceptable risk of severe toxicity for the treatment of primary or recurrent tumor in a previously irradiated area.

PO-1045 Retreatment using Ru-106 or I-125 plaque in uveal melanoma locally recurrent after brachytherapy
 L. Tagliaferri¹, M.M. Pagliara², B. Fionda³, A. Scupola², L. Azario⁴, M.G. Sammarco², R. Autorino³, V. Lancellotta⁵, S. Cammelli⁶, C.G. Caputo⁷, R. Martinez-Monge⁸, G. Kovács⁹, M.A. Gambacorta¹⁰, V. Valentini¹⁰, M.A. Blasi²
¹U.O.C. Radioterapia Oncologica, Dipartimento di Diagnostica per immagini- Radioterapia Oncologica ed Ematologia- Fondazione Policlinico Universitario "A. Gemelli" IRCCS, Rome, Italy ; ²UOC di Oncologia Oculare- Istituto di Oftalmologia, Università Cattolica del Sacro Cuore- Fondazione Policlinico Universitario "A. Gemelli" IRCCS, Roma, Italy ; ³U.O.C. Radioterapia Oncologica, Dipartimento di Diagnostica per immagini- Radioterapia

Oncologica ed Ematologia- Fondazione Policlinico Universitario "A. Gemelli" IRCCS, Roma, Italy ; ⁴U.O.C. Fisica Sanitaria- Istituto di Fisica, Università Cattolica del Sacro Cuore- Dipartimento di Diagnostica per immagini- Radioterapia Oncologica ed Ematologia- Fondazione Policlinico Universitario "A. Gemelli" IRCCS, Roma, Italy ; ⁵Radiation Oncology Section, University of Perugia and Perugia General Hospital, Perugia, Italy ; ⁶Radiation Oncology Center, Department of Experimental- Diagnostic and Specialty Medicine - DIMES- S. Orsola-Malpighi Hospital- University of Bologna, Bologna, Italy ; ⁷Istituto di Oftalmologia, Fondazione Policlinico Universitario A. Gemelli IRCCS, Roma, Italy ; ⁸Clinica Universidad de Navarra, Clínica Universidad de Navarra, Navarra, Spain ; ⁹Interdisciplinary Brachytherapy Unit, University of Lübeck - University Hospital S-H, Lübeck, Germany ; ¹⁰U.O.C. Radioterapia Oncologica- Istituto di Radiologia, Università Cattolica del Sacro Cuore- Dipartimento di Diagnostica per immagini- Radioterapia Oncologica ed Ematologia- Fondazione Policlinico Universitario "A. Gemelli" IRCCS, Roma, Italy

Purpose or Objective

To present the results of a patient therapeutic approach using a second course of Interventional Radiotherapy (Brachytherapy) in a setting of patients with local recurrence of uveal melanoma.

Material and Methods

Patients who had already undergone ocular brachytherapy at IOC (Interventional Oncology Center) of the "Gemelli ART" (Advanced Radiation Therapy) of Rome were considered. In this group, five patients with a local recurrence that received a second course of treatment with a plaque were included in our analysis. The reirradiation was performed with a plaque of Ruthenium-106 (dose prescribed to the apex 100 Gy) or of Iodine-125 (dose prescribed to the apex 85Gy).

Results

All patients were in the first time treated with Ruthenium 106 plaque; the reirradiation was performed with Ruthenium 106 plaque in three cases and with Iodine in the remaining two cases. The mean time between the first and the second plaque was 56.8 months (range 25-93 months). After a median follow-up of 44.2 months (range 26-65 months) from retreatment the local tumor control rate was 100% and there was no patient who underwent secondary enucleation due to retreatment failure. Distant metastasis occurred in one patient after 6 months from retreatment. All patients evolved a worsening of the visual acuity (median visual acuity was 0.42 at time of recurrence and declined to 0.24 at the most recent follow-up); cataract occurred in two cases, no patient developed scleral necrosis.

Conclusion

In well selected cases a retreatment strategy with plaque may offer a high probability of tumor control and organ preservation with a worsening in the visual acuity.

Poster: Brachytherapy: Physics

PO-1046 Precision of source tracking in brachytherapy with scintillation detectors

J. Johansen¹, H.M.L. Rosales^{2,3}, M. Overgaard¹, E.B. Jørgensen¹, G. Kertzscher¹, S. Beddar⁴, K. Tanderup¹, L. Beaulieu^{2,3}

¹Aarhus University Hospital, Department of oncology, Aarhus C, Denmark ; ²Université Laval, Département de physique- de génie physique et d'optique et Centre de recherche sur le cancer, Québec, Canada ; ³CHU de Québec - Université Laval, Département de radio-oncologie et Axe Oncologie du CRCHU de Québec,