

Unresectable and chemoresistant conjunctival squamous cell carcinoma on xeroderma pigmentosum treated by salvage radiation therapy: A case report and a review of the literature

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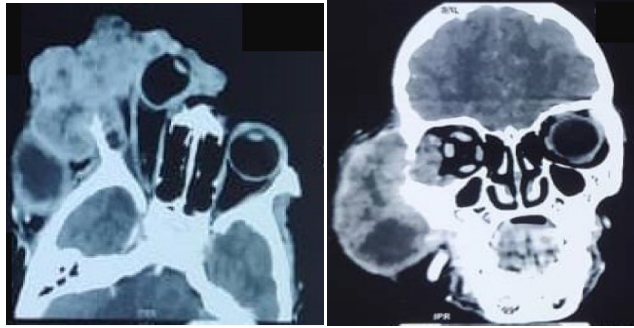
Abstract

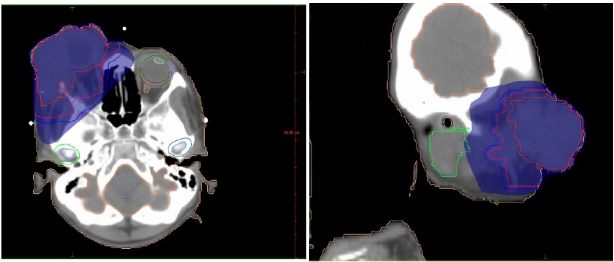
Radiotherapy, by its mechanism, has always been suspected to be contra-indicated in patients with xeroderma pigmentosum, depriving them of this very effective modality in the treatment of their cancers. As these suspicions have still not been confirmed, the place of radiotherapy should be reconsidered, while applying precautionary principles.

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Case_Report_VF3.pdf available at <https://authorea.com/users/448973/articles/547643-unresectable-and-chemoresistant-conjunctival-squamous-cell-carcinoma-on-xeroderma-pigmentosum-treated-by-salvage-radiation-therapy-a-case-report-and-a-review-of-the-literature>









Case Report	Sex	Age (years)	Complemen-tation Group	Histology and location of cancer	Irradiated site	RT dose fractionation regimen	Sequence of RT	Associated systemic treatment	Acute toxicity	Chronic toxicity	Tumor Response	Re-irradiation	Toxicity	Outcome
Giannelli et al. 1981 [15]	M	9	C	Medulloblastoma (posterior fossa)	Cerebro-spinal axis	Head : 53Gy Spine : 27.6Gy	Adjuvant RT	No	Dermatitis Grade s2	NR	NR	No	No	Alive and neurological well 2.5 years after RT
Kim et al. 1982 [16]	F	27	NR	SCC (left maxillary sinus)	Maxillary sinus	67.2Gy/30 fx	Exclusive RT	No	Dermatitis Grade s2	NR	Partial Response	No	No	Died 9 months after RT of unknown cause
	F	21	NR	BCC (lower lip)	Lower lip	26.8Gy/11 fx	Adjuvant RT	No	Dermatitis Grade 3	NR	Complete Response	No	No	Alive and well 13 months after RT
Oguthorpe et al.1987 [17]	M	3	NR	SCC (nasal alar)	Nasal Alar and cheek	20Gy 2.5Gy/1fx per d	Exclusive RT	No	Dermatitis Grade 3	Right heminaasal and cheek defect	No tumor response	No	No	Died of local spread of SCC cheek at 13 yo
	M	21	NR	SCC (cheek)	Cheek and maxillary sinus	50Gy	Pre-operative RT	No	Adjacent tissues toxicity Grade s2	No	50% regression in tumor size	No	No	Died of local spread and neck metastases at 21yo
Patton et al. 1991 [18]	F	20	C	SCC and BCC (left face and eye)	left face and eye	42Gy	Pre-operative RT	No	NR	Xerostomia	NS	No	No	Alive more than 25 years after RT
Leake et al. 1992 [7]	F	14	C	Angiosarcoma (scalp)	Scalp	38Gy /19fx 2Gy/1fx per d	Adjuvant RT	No	Dermatitis Grade3 Osteonecrosis of the skull	Dermatitis Grade3 Osteonecrosis of the skull Cerebral edema	NR	No	No	Died of cerebral edema 2years after RT
Leai-Khouiri et al. 1994 [19]	M	14	C	BCC (forehead, cheeks and nose)	Forehead, cheeks and nose	80Gy	Exclusive RT	No	NR	NR	Tumor Progression	No	No	Alive more than 5 years after RT
Yamashiro et al. 1994 [20]	M	46	NR	Malignant schwannoma (left cavernous area)	Left cavernous area	50Gy	Adjuvant RT	No	NR	NR	Partial Response	After 6 months Adjuvant RT on the left posterior fossa (50Gy)	NR	Alive and well 6 years after the first RT
												After 2 years, Adjuvant RT on the left facial region (45Gy)		
DiGiovanna et al. 1998 [10]	M	21	C	Grade II Astrocytoma	Spinal cord	50.4Gy / 28 fx 1.8Gy/1fx per d	Exclusive RT	Isotretinoin oral	Dermatitis Grade s2	No	Complete Response	No	No	Alive more than 9 years after RT
Giglia et al. 1999 [9]	M	7	C	Anaplastic astrocytoma (Thalamus)	Brain	54Gy	Adjuvant RT	Chemotherapy pre-RT	NR	No	Complete Response	No	No	Died of multifocal tumor progression
Chidzonda et al. 2009 [21]	F	16	NR	SCC (forehead)	Forehead	NR	Adjuvant RT	No	NR	NR	Complete Response	After 1 year Adjuvant RT on the forehead (40Gy/10fx)	NR	Died 1 year after RT of unknown cause
Rubio Casadevall et al. 2009 [22]	M	37	NR	SCC (metastatic neck node)	Hemi neck	50Gy	Exclusive RT	Induction and adjuvant chemotherapy	Dermatitis Grade s2	No	50% regression in tumor size	No	No	Died of local spread 2 years after RT
Wei et al. 2013 [12]	M	12	NR	SCC (face and scalp)	Right hemiface and neck	59.4Gy/33fx 1.8Gy/1fx per d	Adjuvant RT	No	NR	NR	Complete Response	After 5 years Adjuvant RT on the right hemi neck + left submandibular area(54Gy/30fx)	Mucositis grade 3 Dermatitis grade 1	Alive with no sequelae and no recurrence 18 month after the 2nd RT
Schaffer et al. 2011 [13]	M	13	C	SCC (left cheek)	Left cheek	67Gy/38fx	Adjuvant RT	Isotretinoin oral	No toxicity	No toxicity	Tumor progression	After 2 years Adjuvant RT on the left cheek (54Gy/30fx)	No toxicity	Alive and well at 20yo
	M	14	NR	SCC (right temple)	Right temple	59Gy/33fx	Adjuvant RT	No	Dermatitis Grade s2	No	Complete Response	No	No	Alive and well at 17yo
Sahai et al. 2013 [11]	M	10	NR	BCC (face and scalp)	Face and scalp	48Gy / 16 fx (3Gy / fx) 36Gy /12fx (3Gy / fx) 20Gy / 5 fx (4Gy /fx)	Exclusive RT	No	Dermatitis Grade 1	No	Complete Response	No	No	NR

Complementation group	N
A	4
C	8
D	10
F	1
G	6
V	3
NR	1
Total	33

Table 2: distribution of the 33 XP lines according to their complementation group [14]