



## PALLIATIVE RADIOTHERAPY FOR DERMATOLOGICAL CANCERS: REPORT OF 4 CASES

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**ABSTRACT** The goal of palliative radiation therapy in cutaneous tumors is to improve the quality of life of patients without compromising cosmetic outcome and minimizing radiation-induced side effects. We report 4 observations of irresectable cutaneous tumor representing the 3 commonest histological types: Basal cell carcinoma, squamous cell carcinoma and melanoma.

**KEYWORDS :** Palliative radiotherapy, cutaneous tumor, basal cell carcinoma, squamous cell carcinoma, melanoma.

### Introduction :

Dermatological cancer field is very rich, it includes many histological types for which the role of radiotherapy is not always clear. [1]

It's worth mentioning that most cutaneous tumors arise in facial skin and exposed areas of the body [6,7], and can be symptomatic; with bleeding pain or pruritis, that leads to cosmetic and functional limitation.[2]

Palliative care, as defined by WHO, includes improvement of quality of life and symptom relief.[3]

The radio-sensitivity varies depending on histological subtypes, treatment planning depends on tumor localization.

Palliative radiotherapy could be indicated due to patient-related factors: altered performance status, cognitive deficiency, or tumour-related factors : volume, invasion depth or localisation, that makes curative surgery or radiotherapy impossible.[4]

When palliative radiation therapy is intended, it has to be of short course, with ultimate goal of improving quality of life by reducing pain, psychological suffering, tumour volume and bleeding, and by preventing infection and neurological dysfunction in case of ulceration.

Radiation-induced side effects include sub-dermic fibrosis, desquamation, erythema, hypo-pigmentation, epidermal atrophy and telangiectasia. [5]

### Case reports:

#### 1<sup>st</sup> case :

A woman of 68 years old with metastatic desmoplastic melanoma of the right cheek.

Had received several lines of immunotherapy

Good control in metastatic lesions (lung and bone)

Local radiation therapy was indicated with hemostatic purpose  
She benefited from radiation therapy in arc-therapy technic delivering 36 Gy in split courses every 2 days, 4 Gy per-fraction.



#### 2<sup>nd</sup> case:

A fifty-six years-old man with locally recurrent basal cell carcinoma of the forehead of 7 cm (initially treated with surgical resection, recurrence occurred 6 months later).

The patient was referred to our department for palliative radiotherapy, she received local radiation therapy in arc-therapy technic delivering 30 Gy in 5 fractions.

#### 3<sup>rd</sup> case:

An 86 years-old woman with squamous cell carcinoma of the plantar face of the right foot.

A palliative radiation therapy was indicated as she was considered inoperable.

After discussing with the patient and her family, we decided to plan a short course radiotherapy as the patient was PS 3.

She received 36 Gy external beam radiotherapy using low energy photon beams, delivered in split-course (every 2 days in 6 fractions)

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After discussing with the patient and her family, we decided to plan a short course radiotherapy as the patient was PS 3.

She received 36 Gy external beam radiotherapy using low energy photon beams, delivered in split-course (every 2 days in 6 fractions)



### 4<sup>th</sup> case:

A 65 years-old woman with metastatic melanoma, who benefited from several lines of immunotherapy, was referred to our department for analgic radiotherapy in the 2 lesions of the lateral face of the right foot. She received an external low energy photon beam delivering 30 Gy in 5 fractions, the treatment was well tolerated with pain relief without significant side effects.

### Discussion :

Palliative management of dermatological cancers should take into account a complete evaluation including the quality of life, post treatment cosmetic outcomes and psychological and social stress. Most dermatological cancer patients are treated with surgical excision, whereas radiation therapy offers a high level of local control with minimized toxicity.

Radiation techniques in cutaneous cancers are various; electron, low energy, high energy radiation therapy, interstitial brachytherapy...

Irradiation dose will depend on histological type, tumor localization and performance status of the patient.

In the study of Bares et al including 31 patients with irresectable cutaneous cancers treated with palliative radiotherapy, authors reported pain relief in 61,3% and local control in 58,1% of cases.

Concerning metastatic melanoma, KR et al reported in their study (84 patients with central nervous system metastatic melanoma, that patients who received irradiation dose superior to 30 Gy had better local control ( $P=0,01$ ) and significantly prolonged survival (median survival of 8 months vs 2 months,  $p<0,0001$ ) than those who received inferior doses. We did not report major side effects in our patients.

### Conclusion :

Most of studies that have been reported have used conventional radiation techniques.

That would be necessary to lead randomized studies to evaluate the new radiation therapy techniques in order to determine the exact place of radiotherapy in cutaneous cancer palliative care.

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