

Radiotherapy in Cutaneous B-Cell Lymphomas Treatment: Report of Three Cases

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Abstract

Introduction: Primary cutaneous lymphomas (PCL) are a heterogeneous group of extra nodal non-Hodgkin lymphomas defined as malignant tumor derived from B, T or natural killer cells. Primary cutaneous follicle centre lymphoma (PCFCL), represents the most common type of primary cutaneous B- Cell Lymphomas.

Case Report: We present the case of three female patients with facial PCFCL, all of them with excellent response to radiotherapy.

Discussion: Multiple treatments for PCFCL have been described, including systemic or intralesional Rituximab, surgery or radiotherapy. We present these 3 cases of PCFCL treated with radiotherapy in our service, because of the excellent response, confirming radiotherapy as a therapeutic alternative.

Keywords: Cutaneous B-cell lymphomas; Primary cutaneous follicle centre lymphoma; Radiotherapy

Introduction

Primary cutaneous lymphomas (PCL) are a heterogeneous group of extra nodal non-Hodgkin lymphomas defined as malignant tumor derived from B, T or natural killer cells. PCL present manifestations only in the skin without involving other locations at the moment of diagnosis [1]. PCL represent the second most common extranodal lymphoma location after primary gastrointestinal lymphoma [2]. Approximately 25% of PCL are type B- Cell Lymphomas. According to the latest classification these are divided into 3 groups (WHO - EORTC): Primary cutaneous follicle centre lymphoma (PCFCL), primary cutaneous marginal zone lymphoma (PCMZL) and primary cutaneous diffuse large B- cell lymphoma, leg type (PCDLBCL, LT) [3,4]. We present the case of three female patients attending our service.

Case Report

1. 37- year-old female patient, with no medical history, presents with a 5 years evolution indurated erythematous tumor on her left cheek. Biopsy reports a cutaneous follicle centre lymphoma. Systemic involvement study was negative. 3D Radiotherapy was indicated (40 Gy in 20 fractions, performed on a Cobalt-60 treatment device), with complete resolution of the tumor (Figure 1).

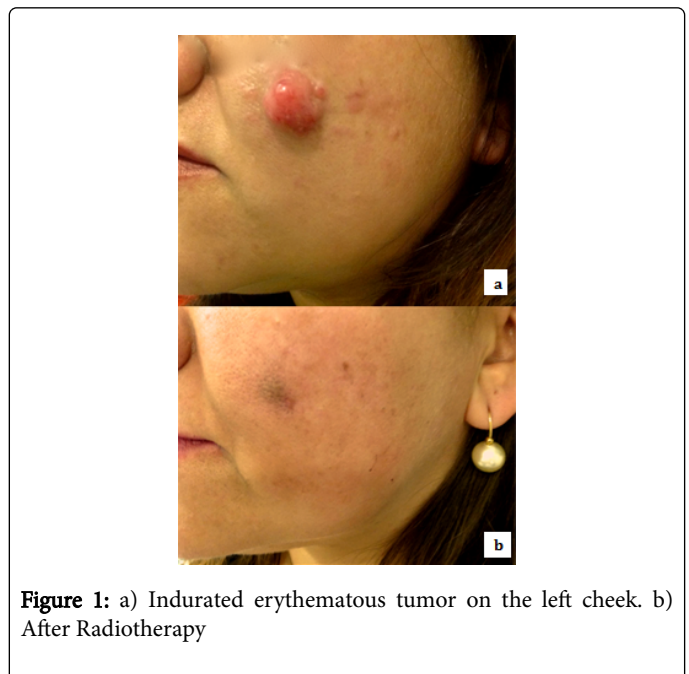


Figure 1: a) Indurated erythematous tumor on the left cheek. b) After Radiotherapy

2. 45- year-old female patient, with no medical history, presents with an infiltrated erythematous tumor on her left cheek, she refers a 18 years history of slow growing, asymptomatic. Biopsy reports a cutaneous follicle centre lymphoma. Systemic involvement study was negative. Radiotherapy (40 Gy in 20 fractions, with appositional

electron field technique) associated to intralesional corticoids was indicated, with complete resolution of the tumor (Figure 2).

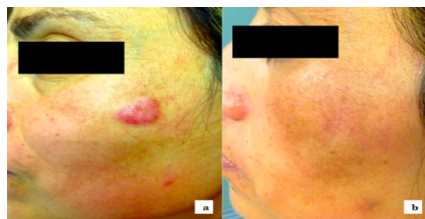


Figure 2: a) Infiltrated erythematous tumor on the left cheek. b) After Radiotherapy associated to intralesional corticoids treatment.

3. 65- year-old female patient, with no medical history, presents with erythematous infiltrated papules on cheeks and nose. First biopsy reports granulomatous rosacea, after no response to multiple treatments a second biopsy was indicated reporting a cutaneous follicle centre lymphoma. Systemic involvement study was negative. Radiotherapy was also indicated (30 Gy in 15 fractions, with a single electron field technique), with complete resolution of the tumor (Figure 3). We interpreted as an agminate form.



Figure 3: a) Erythematous infiltrated papules on cheeks and nose b) After Radiotherapy.

Discussion

The most common type of primary cutaneous B- Cell Lymphomas is the PCFCL, which represents 60% of all cases [5]. The median age of patients is 51 years, with a slight male predominance [5]. PCFCL typically presents as plaques, papules or erythematous solitary tumors, painless, firm, usually located on the head and trunk and rarely present in lower limbs [2]. Normally skin lesions presents for several years, with resistance to multiple treatments before diagnostic confirmation is made.

Diagnostic confirmation is made by histological study, immunohistochemistry and clonal rearrangement [2]. After the diagnosis is confirmed, staging procedures in addition to history and physical examination should be performed to evaluate for extracutaneous disease and anticipate treatment [6]. This type of cutaneous lymphoma has a good prognosis, with a 5-year survival greater than 95%, but a high risk of recurrence [5].

The available therapeutic modalities are diverse and include surgical excision, radiotherapy, corticosteroids, antibiotics, monoclonal antibodies and interferon, as well as monotherapy or polychemotherapy schemas. Treatment should be tailored according to the risk and selected based on the type of lymphoma and on the clinical stage, as well as on the characteristics of the patient and the number, type, extent, location and distribution of the skin lesions [7].

In general, treatment may vary depending on the presentation of disease, with patients presenting with a solitary lesion or lesions limited to a single anatomic site being approached differently from patients presenting with generalized or treatment-refractory disease or evidence of extracutaneous spread. Data supporting these forms of treatment are limited to small retrospective or case studies, and consensus opinions of a group of experts [6].

Radiotherapy for PCL should be highly individualized, depending on tumor histology and location. In general, in patients undergoing radiation therapy, cumulative dose per field ranges from 15 Gy to 45 Gy, generally fractionated into doses of 2 Gy to 2.5 Gy per irradiation field per week, and usually including a margin of 1 cm to 5 cm of normal skin around the affected skin. Most of the patients have a complete response (CR), while recurrence occurs in about half of cases [8].

Adverse effects regarding the use of radiation is dose- dependent, acute toxicity usually presents with erythema and dry desquamation, and late toxicity includes skin fibrosis, telangiectasia, temporary anhidrosis and irreversible alopecia [9,10]. In the case of our patients the principal side effects where erythema and dry desquamation, well managed with topical treatment.

We present these 3 cases of PCFCL treated with radiotherapy in our service, because of the excellent response, supporting radiotherapy as a therapeutic alternative. Our experience is in concordance to the findings reported in the literature. It is important to determine an appropriate treatment to achieve a better quality of life for patients.

Our experience over 25 years in a university medical institution is different from international reports. We have 30 patients with primary cutaneous B- Cell Lymphomas, from which 63,3% present PCMZL, 20% PCFCL and 16,7% PCDLBCL, LT. Also, we have one case associated with chronic *Helicobacter pylori* infection and other case with positive Borrelia serology.

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