# Eruptive basal cell carcinoma and lenalidomide: rising awareness among dermatologists

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## Abstract

Because of its higher level of safety compared to its parent medicine, thalidomide, lenalidomide (L) is chosen for the treatment of multiple myeloma. We report a patient who, within a month of using L, developed more than 10 basal cell carcinomas.

## Introduction

Lenalidomide (L) is approved for treating multiple myeloma, being preferred to its parent drug, thalidomide, for its superior safety.[1] We report the case of a patient developing more than 10 basal cell carcinomas (BCCs) within 1 month of starting L.

Notably, his treating hematologist neither recommended sun avoidance nor alerted him to this possible side effect. Moreover, not even the referring dermatologist was capable of linking the eruption of BCC to L. The tendency of L to promote BCCs may be underreported compared with other hematological drugs with known dermatological side effects such as hydroxyurea.[2]

## Case Report

A patient in his sixties was referred for an exophytic and bleeding 2.5 cm lesion of 1 month's duration on his thigh. Surprisingly, during the 2-week period between excision, 10 additional BCCs were reported by the patient on his legs (Figure 1A), nose, and trunk (Figure 1B). Although his skin was severely photo-damaged, such excessive occurrences of leg BCCs was acknowledged as unusual by the dermatological surgeon who further examined the patient. He had previously been treated unsuccessfully with repeated autologous stem-cell transplants for myeloma, then with thalidomide, which was interrupted after 3 years due to peripheral neuropathy. Treatment with L resulted in complete hematological response and no side effects. No other immunomodulating drug, such as corticosteroid, was concomitantly used. Moreover, the patient himself recalled that these skin lesions had appeared after he started L. His hematologists allowed discontinuing L, and we observed no further BCC onset. At this point, all BCCs were excised without recurrence. Histological examination confirmed the presence of BCCs, and he resumed L with close dermatological follow-up and timely excision of each new BCC.

## Discussion

L is used in the treatment of B-cell disorders such as myeloma (MM), 5q-myelodysplasia, and mantle-cell lymphoma.[1] Moreover, dermatologists for some refractory cutaneous conditions are increasingly using both thalidomide and lenalidomide.[3] It has been reported that L use, particularly when in association with other medications such as melphalan or dexamethasone, may increase the incidence of second malignancies and, among second primary malignancies, nonmelanoma skin cancers are abundantly represented.[4] Furthermore, according to Food and Drug Administration reports, 59 basal cell carcinomas (BCCs) out of 3202 cases during treatment with lenalidomide have so far been reported, being the percentage of L patients with BCC 1.8426%, *versus* the average percentage of 0.0281% for *all* medicated patients reporting BCC as a complication.[5] Nevertheless, to the best of our knowledge, using a Pub-Med research strategy ("lenalidomide"[Supplementary Concept] OR "lenalidomide"[All Fields]) AND ("carcinoma, basal cell"[MeSH Terms] OR ("carcinoma"[All Fields] AND "basal"[All Fields] AND "cell"[All Fields]) OR "basal cell carcinoma"[All Fields] OR ("basal"[All Fields] AND "cell"[All Fields] AND "carcinoma"[All Fields])) AND non[All Fields] AND ("melanoma"[MeSH Terms] OR "melanoma"[All Fields]) AND ("skin neoplasms"[MeSH Terms] OR ("skin"[All Fields] AND "neoplasms"[All Fields]) OR "skin neoplasms"[All Fields] OR ("skin"[All Fields] AND "cancer"[All Fields]) OR "skin cancer"[All Fields]) we were unable to find any report about this association. It is well known that patients undergoing transplants have a substantially elevated risk of squamous cell skin carcinoma, largely attributable to immunosuppressive medications used to prevent graft rejection. Except for this setting, the dermatologist does not usually match the onset of cancer with the patient's medications. Dermatologists have the opportunity to prevent such a challenging burden by simply providing these patients with useful suggestions such as avoiding sun exposure, having a close dermatological follow-up and possibly chemoprevention.[6]

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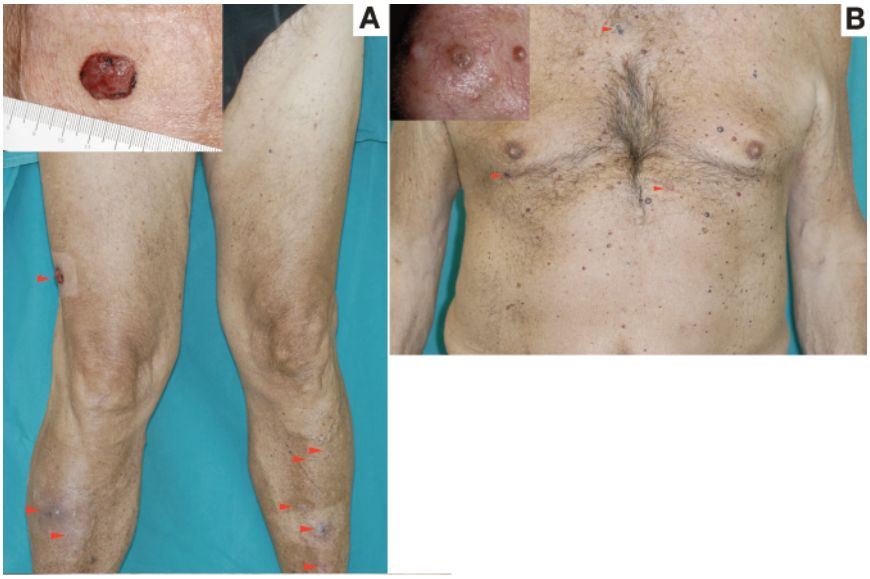


**Figure 1. A) Basal cell carcinoma (BBCs) on the patient's legs; B) BCCs on the patient's nose, and trunk.**

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