

## Systemic anaplastic T-cell lymphoma and extrafacial basal cell carcinoma: A unique combination

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### Introduction

Non-Hodgkin's lymphomas (NHL) constitute heterogeneous group of lymphopathies. There appears to be an increased risk of secondary cancers, particularly non-melanocytic skin tumors with a more aggressive behavior, in patients with non-hodgkin's lymphoma [1]. We report the case of a patient hospitalized for the management of systemic lymphoma in whom a pigmented basal cell carcinoma (BCC) of the breast was discovered.

### Observation

A 77-year-old female patient, who has a medical history of treated and declared cured lymph node tuberculosis, and tuberculous mastitis currently under radiological surveillance and currently in remission. Admitted for the management of a cervical tumor evolving for the past month in a context of general deterioration. The examination revealed an ulcerated and budding tumor of 7cm on the right lateral neck(fig1). A pigmented plaque on the right breast, oval-shaped, of 2 cm, has been present since a young age according to the patient(fig2), with dermoscopy showing digitiform pigmented structures and a cogwheel appearance suggestive of pigmented superficial basal cell carcinoma(fig.3). Given this presentation, scrofuloderma tuberculosis, T CD30 cutaneous lymphoma, and mammary lymphoma with cutaneous extension were considered. The



**Figure 1:** Bulky ulcerated and budding tumor on the right lateral cervical region.

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**Figure 2:** Pigmented plaque on the right breast with a chronic course.

histology and immunohistochemistry of the tumor showed an ulcerated cutaneous T-cell lymphoproliferation with large cells CD30+, and the staging revealed secondary involvement of the lungs, liver, spleen, subphrenic region, as well as the discovery of a paraneoplastic pulmonary embolism. The evolution was fatal, and the patient died before the start of chemotherapy.

### Discussion

BCC is considered among skin tumors with low metastatic potential, most frequent in men. In immunocompromised individuals, especially those with NHL, BCC is more common, with a recurrence rate of up to 22% at 5 years [2]. Various hypotheses about this association have been proposed,



**Figure 3:** Dermoscopic examination of the pigmented plaque on the right breast shows digitiform structures at the periphery and a cogwheel appearance suggestive of a pigmented superficial basal cell carcinoma.

### Conclusion

Non-melanocytic skin tumors such as BCC are frequently associated with systemic lymphomas. They are more recurrent and aggressive when they occur after lymphoma. Their presence earlier suggests the hypothesis of a common pathophysiological mechanism between the two tumors, as was the case with our patient.

### References

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including immunosuppression caused by lymphoma. In these patients, deficient expression of CD40 ligand on T lymphocytes hinders their interaction with B lymphocytes and antigen-presenting cells. Additionally, altered expression of major histocompatibility complex and granulocyte function has been noted, contributing to the accumulation of mutagenic events [1,3]. The idea that UV radiation could be associated with the development of lymphoma and skin cancer is interesting, but there are no consistent data, and some reports are contradictory [2]. Our case illustrates a unique situation where a primary cutaneous lymphoma was initially suspected, but systemic investigation corrected the diagnosis. The discovery of a BCC evolving for years in a sun-protected area preceding the diagnosis of such an aggressive lymphoma is challenging to explain: could it be the immunosuppressive effect of UV that favored the development of both malignancies, even though our patient's BCC was located in a sun-protected area? Or is it the immunosuppression of lymphoma that favored the development of the non-melanocytic tumor, even though our patient's BCC preceded the onset of lymphoma? The theory of a common genetic component could explain the association of both entities, but there are only a few case reports regarding the occurrence of melanoma and lymphoma.