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Assessment of Infection Profile and Incidence of Other Malignant Neoplasms in Patients with Mycosis Fungoides and Sézary Syndrome

Fabiana Tiemy Yokota de Oliveira¹(*in memoriam*), Lucas de Teive e Argollo¹, Rafael Fantelli Stelini¹, Paulo Neves F. Velho¹, Elisa Nunes Secamilli¹, Juliana Y. Massuda Serrano¹

¹Universidade Estadual de Campinas, São Paulo – Brazil. julianamassuda.dermato@gmail.com

INTRODUCTION

Cutaneous lymphomas are divided into cutaneous B-cell lymphomas, cutaneous T-cell lymphomas (CTCL) and cutaneous NK-cell lymphomas. Mycosis fungoides (MF) and Sezary syndrome (SS) are the most common variants of CTCL.

MF results from the clonal expansion of aberrant T cells and presents as patches, plaques, nodules, or tumors. SS corresponds to the leukemic variant of CTCL, marked by erythroderma and atypical lymphocytes in circulation.

Infections are one of the leading causes of death among patients with MF and SS. Loss of the skin barrier and immunosuppression by aberrant T cells increase susceptibility to infectious diseases. Other malignant neoplasms, both cutaneous and visceral, are more common among these patients.

METHOD

A retrospective observational cohort study was conducted, collecting data from the records of patients with the diagnosis of MF or SS, from 2012 to 2021.

The primary objectives included gathering data to establish the infection profile of patients. Additionally, the study aimed to evaluate and characterize the incidence of a second primary malignant neoplasm in patients diagnosed with MF or SS .

RESULTS

48 patients were included in the study, of whom 43 had MF and five had SS. Table 1 demonstrates the occurrence of other primary neoplasms in six of the investigated patients. Three of these patients presented with skin cancers. Two patients had visceral malignant neoplasms, and two patients had a second lymphoproliferative neoplasm. Table 2 highlights that nine patients had infections reported in their medical records. Four patients required hospitalization, and there was one death.

DISCUSSION

The results of the study are consistent with literature data, suggesting that MF and SS entail a higher risk of infections and the development of other neoplasms.

This clearly impacts the morbidity and mortality of these diseases. These aspects should be considered, including in the indication of less invasive therapies for patients with cutaneous lymphomas.

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Gender	Age	Dermatosis	Second neoplasm	Phototherapy	Smoking	Alcoholism	Decese
Female	67	MF	Thyroid, breast and 3 non-melanoma skin cancer	No	Yes	No	Yes
Female	71	MF	3 Melanomas, 1 non-melanoma skin cancer	No	No	No	No
Male	77	MF	Colon cancer	PUVA e UVB	Yes	Yes	No
Male	59	Pagetoid reticulosis	Extranodal marginal zone lymphoma	No	Yes	No	No
Male	66	MF	Hodgkin lymphoma	No	Yes	No	No
Male	67	MF	1 non-melanoma skin cancer	PUVA e UVB	Yes	No	No

Table 1 - Profile of patients with other primary neoplasms

Gender	Age	Dermatosis	Chemotherapy	HIV	Skin infections	Other infections	Etiological agent	Hospitalization	Decease
Female	37	MF	No	Negative	No	URTIs	Sars-Cov-2	No	No
Female	74	SS	Yes	Negative	No	Catheter	S.aureus	No	No
Male	77	MF	No	Negative	Yes	No	S.aureus, E.coli	No	No
Female	86	MF	No	Negative	Yes	No	S.aureus	Yes	No
Male	66	Granulomatous slack skin	No	Negative	Yes	Yes	Unidentified agent	Yes	Yes
Female	71	MF	No	Negative	Yes	No	T. pallidum	No	No
Male	77	SS	Yes	Negative	Yes	No	Unidentified agent	Yes	No
Male	48	SS	Yes	Negative	Yes	No	Herpes simples, S. aureus	No	No
Male	47	MF	Yes	Negative	Yes	No	Herpes simples	Yes	No

Table 2 - Profile of patients with significant infections