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Case Report

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Posttransplant Primary Cutaneous CD30+ Anaplastic Large T Cell Lymphoma: A Case Report

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ABSTRACT

Recipients of organ transplants are at an increased risk of secondary malignancies. An anaplastic large cell lymphoma that was positive for CD30 presented as a several tumors on the forehead in a 60-year-old man 12 years after kidney transplantation. A pulmonary adenocarcinoma was also discovered during the extension workup. Systemic chemotherapy was decided but the patient died from COVID infection. This case highlight that strict screening programs after kidney transplantation are key factors for an early diagnosis and to allow for prompt treatment resulting in a better outcome.

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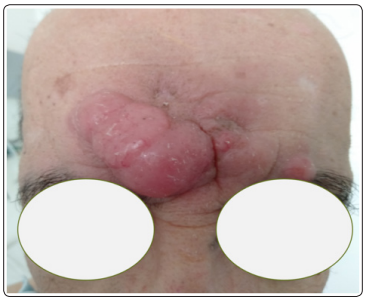
Introduction

Primary cutaneous anaplastic large cell lymphoma (PC-ALCL) is a CD30+ lymphoproliferative disorder (LPD) of the skin with a relatively good prognosis in the absence of high-stage disease. CD30+ LPDs comprise approximately 25%-30% of primary cutaneous lymphomas and as a group represent the second most common clonal T-cell neoplasm of the skin behind mycosis fungoides. Posttransplant lymphoproliferative disorders (PTLDs) are among the most common complications of transplantation. Although extranodal presentation is one of the characteristic features of a PTLD, primary cutaneous lymphomas in organ recipients are rare and rarely reported [1,2]. Here, we describe a case of primary cutaneous CD30+ anaplastic large cell lymphoma (ALCL) that occurred in a 56-year-old renal transplant recipient.

Report of case

A 60-years-old man presented in April 2020 with several tumors on the forehead evolving since 8 months. His medical past history was significant for renal failure secondary to bilateral polycystic renal disease; therefore a right kidney tranplantation has been performed in 2008. Since that time, his immune system had been suppressed with prednisolone, mycophenolate mophetil, and cyclosporine. Clinical examination showed several edematous and nodular lesions, dotted with fine telangiectasias, of different diameters, the largest of which has a long axis of 4 cm (figure 1).



The rest of the examination showed no adenopathy or organomegaly. Histologic examination of the biopsy specimen from the forehead revealed diffuse nonepidermotropic infiltrates with cohesive sheets of large pleomorphic tumor cells. Immunohistochemical evaluation demonstrated that most of the tumor cells were positive for the CD3, CD4, and CD30. White blood cell count, lymphocytes, neutrophils and monocytes were normal. The CD4/CD8 ratio, Sezary cells count and osteomedullar biopsy were also normal, thus eliminating a systemic anaplastic lymphoma revealed by skin lesions. Thoracic and abdominal pelvic CT scans did not show any secondary localization except a suspected lung image that corresponded to a pulmonary adenocarcinoma. In view of the clinical presentation, the clinical course of the tumors and the paraclinical results, the diagnosis of primary Cutaneous CD30+ Anaplastic Large T Cell Lymphoma associated with a pulmonary adenocarcinoma was retained. The patient was treated with systemic chemotherapy but he died after few weeks from COVID-19 infection.

Discussion

Posttransplant malignancy is a leading cause of death after solid organ transplantation (SOT). Recipients of SOT are at significantly higher risk of multiple cancers compared with the general population, most notably nonmelanoma skin cancer and posttransplant lymphoproliferative disorders. However, renal cell carcinoma, cancer of the gastro-intestinal tract, urinary system, respiratory system, female reproductive system were also described in the literature [3,4].

Non-Hodgkin lymphoma is one of the most common posttransplant malignancies regardless of country of origin [2]. Most posttransplant T-cell lymphomas are of high grade and are commonly extranodal in presentation. The central nervous system and gastrointestinal tract are common extranodal sites for PTLDs, but posttransplant primary cutaneous lymphomas

are rare and they were rarely reported. Primary cutaneous anaplastic large-cell lymphoma (PCALCL) manifests in most patients with a solitary or grouped, rapidly growing and ulcerating large tumors or thick plaques. Rarely, the disease manifests with multifocal lesions. Spontaneous complete or partial regression of the tumor(s) is possible and prognosis is favorable with 5-year survival rates between 76% and 96% [5,6]. Surgical excision and radiotherapy are most commonly used for solitary tumors, whereas chemotherapy is given for multifocal disease [6].

The histologic findings of both lymphomatoid papulosis and PCALCL with large pleomorphic and anaplastic lymphoid tumor cells and the clinical appearance with rapidly growing or multiple lesions may result in misinterpretation as a highly malignant cutaneous or even systemic T-cell non-Hodgkin lymphoma [6].

Conclusion

Novo malignancies are a major issue in kidney transplant patients; in particular, skin and lung cancers. Oncologic treatment of these patients is complex, requiring close collaboration between the transplant team and oncologist. Strict screening programs are key factors for an early diagnosis and to allow for prompt treatment resulting in a better outcome.

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