Cancer Immunotherapy associated with Interstitial Lung Disease

The field of oncology has entered an era of molecularly targeted therapy[1]. Among the many immunotherapeutic strategies, immune checkpoint blockade has shown remarkable benefit in the treatment of a range of cancer types[2]. The broader use of immunotherapy challenges clinicians in the diagnosis and management of side effects which are caused by inflammation generated by the activation of the immune response. Nearly all organs can be affected. Interstitial lung disease (ILD) has been identified as a rare but potentially severe event[3].

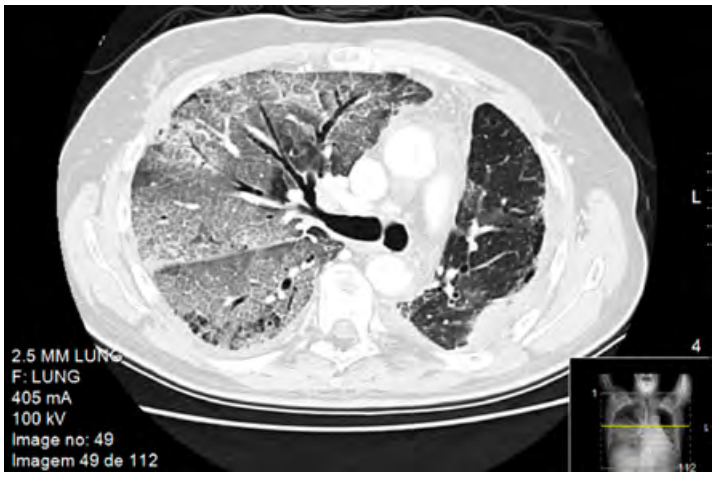
Compared with cytotoxic chemotherapy, agents such as *Crizotinib,* an oral tyrosine kinase inhibitor, offer the promise of improved outcomes with fewer toxicities. However, these agents often target multiple pathways, it is important to recognize both on-target and off-target effects so as to anticipate and treat toxicities that arise[4,5].

This report describes the clinical case of a 57-year-old man, ex-smoker, being treated with *Crizotinib* for a lung adenocarcinoma's recurrence documented in a control CT thorax which showed the progression of the lesion of the lower left lobe of the lung (no more lesions were visible), after an initial scheme with chemo and radiotherapy.

He was admitted to the emergency department (ED) for progressive dyspnea and a dry cough three weeks after the start of immunotherapy, no history of documented fever. In the ED was objectified a severe respiratory insufficiency; given the insidious evolution of neoplasia and the potential for recovery of drug iatrogeny, he was sent to an intensive care unit (ICU) for ventilatory support. A high-resolution chest CT was performed demonstrating findings suggestive of a severe interstitial lung disease. In the medical image presented are visible extensive areas with depolyzed glass densification and thickening of interlobular septa with diffuse alveolar damage type formation.

In the ICU was performed a bronchoalveolar lavage showing a T-lymphocytic alveolitis, microbiological evaluations (viruses, bacteria, fungi and parasites) were negative; the immunological study would also be negative. With adequate ventilatory support the treatment of ILD was achieved with the use of high-dose steroids.

Immunotherapy is becoming a standard approach for many cancer patients. Interstitial lung disease has been identified as a rare but serious and potentially deadly event requiring an early diagnosis, close monitoring and treatment[3,5].



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