Complete Resolution of Recurrent Chylothoraces with Acalabrutinib in Chronic Lymphocytic Leukaemia.

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Chylothorax is a rare complication of Chronic Lymphocytic Leukaemia (CLL). Previous publications reported variable success rates in management with intensive chemotherapy, which is often unsuitable in CLL patients with chylothoraces due to complications with malnutrition and immunodeficiency. We describe a case of CLL with chylothoraces successfully treated with acalabrutinib, a well-tolerated oral chemotherapy in the class of bruton's tyrosine kinase inhibitor (BTKI). A 76-year-old woman with CLL on active surveillance presented with a persistent dyspnoea and cough. Chest imaging showed bilateral pleural effusions. Therapeutic pleural aspiration yielded 1L of milky fluid with a high triglyceride content suggestive of a chylothorax. Pleural fluid cytology and immunophenotyping confirmed CD5-positive CLL infiltrates. She commenced treatment with steroid and acalabrutinib, but this was initially interrupted by frequent invasive thoracic procedures for reaccumulating chylothoraces. A trial of talc pleurodesis was unsuccessful. An indwelling pleural catheter (IPC) was inserted, allowing uninterrupted treatment. 8 months after commencement of acalabrutinib, repeat chest imaging showed resolution of the effusions, and the IPC was removed. She remained in good remission 14 months later starting treatment. This case highlights the difficulty in managing this complication of CLL, especially due to frequent interruptions of acalabrutinib (associated with increased bleeding risks) due to frequency of invasive pleural procedures required, thereby interrupting treatment efficacy. This necessitated longer-term measures; talc pleurodesis and IPC, which carry a risk in an immunocompromised, malnourished patient. Careful discussion of the risks and benefits allowed us to successfully deliver the treatment and attain good remission with resolution of the effusions.

Keywords: Chylothorax, CLL, Acalabrutinib

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