

***EML4-ALK*-positive non-small cell lung cancer in a patient treated with azathioprine for ulcerative colitis**

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ABSTRACT

EML4-ALK-positive lung cancer is a novel cancer entity associated with light or never smoking, younger age, and adenocarcinoma with acinar or signet-ring cell type histology. Another mutation of *ALK* with *NPM*, resulting in *NPM-ALK* fusion mutation, was described in patients with anaplastic large cell lymphoma (ALCL). It was subsequently reported in organ transplant recipients and patients undergoing immunosuppressive therapy. We describe a case of lung cancer in a 36-year-old non-smoking woman with ulcerative colitis treated with azathioprine, who was diagnosed with *EML4-ALK*-positive, metastatic lung cancer two months postpartum. Crizotinib 300 mg/day has been effective in maintaining response after chemotherapy failed. The resemblance of this case to *ALK*-positive ALCL in organ transplant recipients suggests that similar mechanisms may be responsible for the development of both *ALK*-positive lung cancer and ALCL in patients receiving immunosuppressive therapy.

Key words: azathioprine, *EML4-ALK*, lung cancer, postpartum, ulcerative colitis.

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