ALECTINIB FOR ALK-POSITIVE UTERINE LEIOMYOSARCOMA: SUSTAINED RESPONSE AFTER TREATMENT RESISTANCE - A CASE REPORT

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BACKGROUND

- **Uterine leiomyosarcoma (uLMS)** is a highly aggressive soft-tissue sarcoma with frequent metastatic relapse after surgery. Chemotherapy offers limited efficacy in advanced cases.
- **Alectinib**, a second-generation ALK inhibitor approved for non-small cell lung cancer, has shown potential benefits in ALK-rearranged non-lung tumors.

AIM AND OBJECTIVES

- 57 year-old women. Family history of cancer. Diagnosed with uterine leiomyosarcoma in February 2018.
- She underwent various surgeries: hysterectomy, appendectomy, resection of prevesical and peritoneal implants.
- **Adjuvant chemotherapy** with doxorubicin was completed by June 2018 (4 cycles).

MATERIALS AND METHODS

PET/SCAN in November 2018 → disease progression with pulmonary metastases

LINES OF TREATMENT RECEIVED SINCE 2018	
1st Gemcitabine + paclitaxel (4 cycles) 2nd Trabectedin (14 cycles) 3rd Pazopanib (8 weeks) 4th Temozolomide (4 cycles)	5th Dacarbazine + gemcitabine (4 cycles) 6th Liposomal doxorubicin (5 cycles) 7th Eribulin (7 cycles) 8th Letrozole (2 months)

MOLECULAR TESTING: NEGATIVE in BRCA, NTRK, TP53, CDH1, RAD51, MSI, PALB2, CHEK2, BRIP1, STK11 and PD-L1 expression

↓ March 2022

ALK mutation identified → April 2022 → **Start of Alectinib (off label)**

RESULTS

Alectinib dosage: 600 mg every 12 hours

Effectiveness and safety was monitored through routine evaluations.

After 3 months, PET/CT scan showed: partial response, reduction of tumor size and metastatic lesions. Response remains ongoing.

Hospital pharmacists monitored for drug interactions and adverse events, providing follow-up care through specialized outpatient oncology pharmacy clinic.

Grade 1 constipation, eye cataract.
2023: grade 1 skin toxicity → corticosteroids
2024: recurrence of skin toxicity → plaque psoriasis
No dose reduction was required.

CONCLUSIONS

In this case, alectinib has demonstrated effectiveness in managing uLMS with an ALK mutation after several lines of prior treatment. The patient has maintained a partial response to therapy since the initiation of alectinib, with no severe adverse events reported. However, further clinical studies are necessary to assess the broader efficacy of alectinib in this tumor type, as it remains an off-label use.

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