Palbociclib: A novel and effective therapy for advanced liposarcoma

Myxoid liposarcomas are rare tumours associated with a high likelihood of recurrence and a dismal prognosis, even with multimodality therapy.[1] Despite its chemosensitivity, the options are limited beyond the conventional anthracycline and taxane-based chemotherapy regimens, with subsequent lines considered experimental.[2] *CDK4* amplification is detected in 90% of liposarcomas, and the inhibitor palbociclib is part of the National Comprehensive Cancer Network (NCCN) guidelines.[2,3] We present a patient with chemotherapy-resistant myxoid liposarcoma that showed a considerable response to palbociclib.

In October 2022, a 47-year-old man, free of comorbid conditions and with good performance status, presented with a non-metastatic myxoid liposarcoma of FNCLCC (Fédération Nationale des Centres de Lutte Contre le Cancer) grade 2 located in his left thigh. He underwent resection with negative margins and received adjuvant radiotherapy. Two months later, in December 2022, he had a recurrence in the retroperitoneal region, which was resected. The patient defaulted to adjuvant chemotherapy. By May 2023, after 5 months, he developed metastases to the liver, lungs and multiple bones. He commenced gemcitabine with docetaxel combination chemotherapy, but after three cycles, he had disease progression. Subsequently, he was started on doxorubicin with ifosfamide chemotherapy, and underwent three cycles before encountering disease progression. Owing to financial constraints, he was unable to access chemotherapy options like eribulin and trabectedin, next-generation sequencing, or any targeted therapy. Consequently, he commenced generic palbociclib at a 125 mg dose for days 1–21 of a 28-day cycle. He had a considerable response upon CT scan evaluation after four cycles. He completed 6 months of treatment and had notable improvement in symptoms. In March 2023, 7 months into therapy with palbociclib, he developed disease progression. It is noteworthy that palbociclib kept the disease under control for over 6 months, whereas conventional chemotherapy failed within less than 3 months.

We present this case to raise awareness among clinicians about a potentially valuable, cost-effective, less toxic and underutilized treatment approach for chemotherapy-resistant liposarcomas. While inhibition of the CDK4/6 pathway has been notably effective in liposarcomas, its application in other sarcomas such as leiomyosarcoma, osteosarcoma, rhabdomyosarcoma, and *BCOR-CCNB3* fusion-positive sarcoma remains an area of active research.[4] The role of CDK4/6 inhibitors requires further evaluation in prospective biomarker-guided trials in soft tissue sarcomas.

Conflicts of interest. None declared

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Malignant transformation in giant sebaceous cysts: Uncommon but not impossible

Sebaceous carcinoma (SC) is an infrequent yet potentially aggressive ailment.[1] While sebaceous cyst, a prevalent non-malignant growth, seldom evolves into malignancy, they can progress to SC.[1,2] The diagnostic process entails a biopsy, and the recommended treatment is excision.

A 57-year-old farmer presented with a large ulcerated swelling at the nape of his neck. Initially pea-sized for 20 years, the swelling occasionally discharged malodorous fluid and was diagnosed as a sebaceous cyst. Despite a surgical recommendation, the patient opted for homeopathic treatment. Recently, the swelling rapidly increased in size with ulceration, and bleeding. The patient, known to have diabetes and on oral hypoglycaemic drugs and a chronic smoker, had normal bladder and bowel habits. Examination showed a 10 cm×9 cm ovoid, non-tender, partially mobile swelling with ulceration and bleeding, fixed to the underlying scalp. A provisional diagnosis of soft tissue sarcoma was considered. Haematological parameters were normal, and HbA1C was 6.5%. MRI revealed a large heterogeneous lesion in the occipital subcutaneous tissue, while MRI of the brain was unremarkable. An incisional biopsy confirmed SC. Treatment involved wide local excision and reconstruction with a trapezius myocutaneous flap. The patient was discharged on postoperative day 10 with tumour-free margins and referred to oncology.

SC are common, benign, intradermal or subcutaneous dermatological lesions that grow slowly.[1] Approximately 25% of SCs occur on the scalp, affecting men and women equally.[1,3] Malignant transformation is rare, occurring in 1.1% to 9.2% of cases.[2] Squamous cell carcinoma, basal cell carcinoma, and Merkel cell carcinoma can develop within SCs. The risk of malignant transformation increases with age. Symptoms such as pain, ulceration, and increase in size may indicate malignancy.[4] SC can mimic benign conditions such as pyogenic granuloma or molluscum contagiosum and other non-melanoma skin cancers.[3–5] Although CT, PET-CT and MRI are used, there is no standardized imaging or staging guideline for SC.[2–4] Imaging is generally unnecessary unless the tumour is locally advanced. X-rays can reveal bony destruction, and MRI can delineate soft tissue involvement. Imaging for regional or distant disease should be symptom-driven. Biopsy is essential for diagnosis.

The treatment for carcinomas arising from sebaceous cysts involves wide excision. Metastasis is rare but can occur via direct extension, lymphatic spread or haematogenous route, with rates between 14% and 28% and cancer-specific mortality between 18% and 30%.[3–6] With adequate wide excision, the prognosis is generally good. Five-year observed and relative survival rates are 78.2% and 92.7%, respectively, while 10-year rates are 61.7% and 86.9%.[5,6]

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