

Metastasis of endometrial carcinoma to the ocular adnexa

A 61-year-old female was referred by her oncologist for a rapidly enlarging, painful erythematous mass in the region of the left medial canthus, first noticed 1 month prior. She reported no change in vision, no epiphora, and no discharge from the eye. She had been using warm compresses and gentle massage to no effect. She had no past ocular history. Her past medical history was notable for metastatic endometrial carcinoma with metastases to lung and femur, for which she had completed numerous rounds of chemotherapy and radiation as well as total abdominal hysterectomy with bilateral salpingo-oophorectomy years prior. Her only medication was fulvestrant, a selective estrogen receptor antagonist.

Examination revealed a well-circumscribed, firm, tender violaceous mass inferior to the left medial canthal tendon and fixed to the maxillary bone, measuring $2.2 \times 1.1 \times 1.0$ cm. There was no surrounding erythema, proptosis, or strabismus. Examination of the anterior and posterior segments was unremarkable. Given the high suspicion for metastasis, a computed tomography scan of the orbits and facial bones was performed urgently and revealed a 2×2 cm exophytic solid lesion anterior to the nasolacrimal duct with erosion through the left nasal process

(Fig. 1). The patient was consented for biopsy with tissue sent for surgical pathology and culture. Unfortunately, the pathology was indeterminate, and the patient was referred to oculoplastics for repeat biopsy.

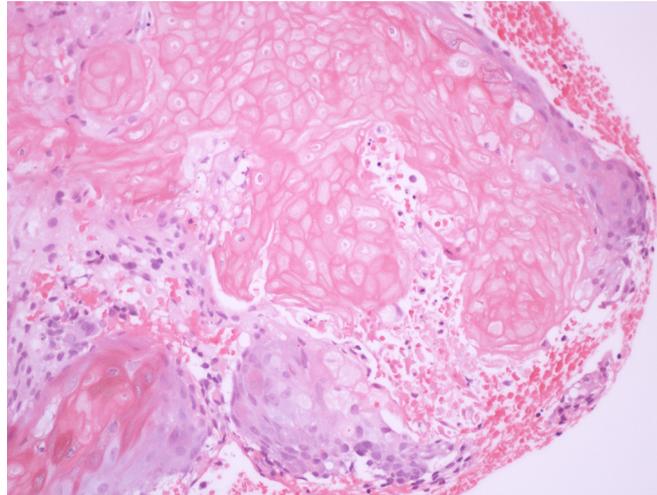
The patient presented to the Emergency Department 1 week later with worsening pain and increased size of the lesion, now measuring $4.0 \times 4.0 \times 3.1$ cm grossly. The patient described pain awakening her from sleep that radiated into her maxillary teeth. Paresthesia to fine touch was noted on examination in the left cranial nerve V2 distribution. The patient was consented for an anterior orbitotomy with tumour debulking that was performed immediately. Tissue was once again sent for surgical pathology and showed extensive soft tissue infiltration by a malignant gland-forming tumour with scant basophilic cytoplasm, large ovoid nuclei, and prominent nucleoli (Fig. 2). By immunohistochemistry, the cells were positive for estrogen receptor. These findings, diagnostic of metastatic endometrial carcinoma, were discussed with the patient's oncologist, who started oral corticosteroids for pain management.

The patient went on to be enrolled in a targeted immunotherapy randomized, controlled trial. She underwent external-beam radiotherapy and was seen by the pain management team. She subsequently developed severe keratoconjunctivitis sicca, which resolved with lubrication. Despite completion of radiotherapy, the patient's lesion



Fig. 1—Axial contrast-enhanced computed tomography scan of the head at initial presentation to clinic.

(a)



(b)

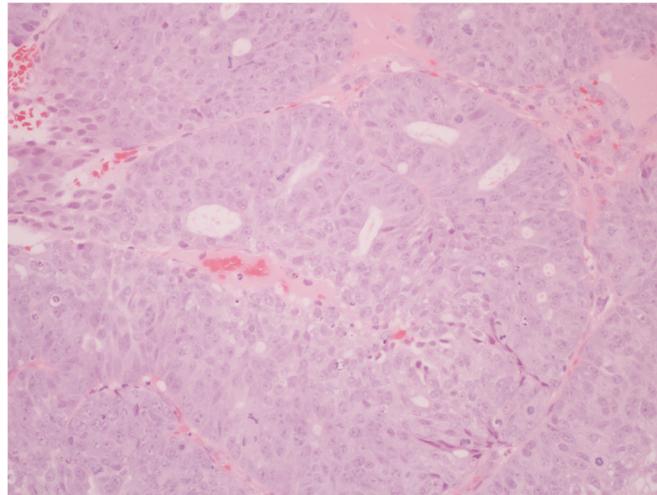


Fig. 2—Photomicrograph showing tumour with (A) extensive squamous differentiation and (B) areas more typical of endometrial carcinoma (H&E stain; 20× magnification).

progressed in size and caused nasolacrimal duct obstruction. The patient also developed a small lesion overlying the left frontal bone that resembled the medial canthal lesion.

To our knowledge, this is the first reported case of endometrial carcinoma metastasizing to the superficial structures of the face and orbital adnexa. There are limited reports of endometrial carcinoma metastases to the structures of the orbit and sinuses, including to the ethmoid sinus presenting as a mucocele,¹ to the orbit presenting as a rapidly enlarging cystic mass² and as orbital apex syndrome,³ and to the maxillary sinus presenting with globe displacement.⁴ A case of metastasis to the choroid presenting with rapid vision loss also has been reported.⁵

Despite the acute presentation raising suspicion among nonophthalmologists for dacryocystitis, the absence of epiphora and discharge and the history of metastatic cancer quickly prompted urgent biopsy. The delay in tissue diagnosis was due to sampling of a necrotic central

core initially. The pathology diagnosis was conclusively made by comparing the periorbital sample with the original cancer pathology, which showed unusual squamous differentiation for an adenocarcinoma of the endometrium. This case highlights the importance of providing a complete oncologic history with histologic specimens because the unusual squamous cell morphology could have been mistaken for a primary lesion in the absence of relevant history.

As the lesion progressed, the patient developed cranial nerve V2 radicular pain as well as V2 paresthesia. Review of her initial imaging demonstrated tumour extension to the left infraorbital nerve. Although V2 nerve function improved after tumour debulking and dexamethasone use, it subsequently deteriorated with no improvement following radiotherapy. Despite the palliative prognosis for her systemic disease, the patient remained high functioning until passing the following year.

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Footnotes and Disclosure

The authors have no proprietary or commercial interest in any materials discussed in this correspondence.