

## A Lesion not to be Overlooked

A 61-year-old male presented with a fungating ulcer over his left inferior peri-orbital region. The tumour first started 10 years ago as a small lesion on his lower eyelid and over the last 2 years, it had grown rapidly, causing a loss of vision of the left eye. He otherwise was systemically well. Clinical examination revealed a large ulcer with irregular, raised borders and impetiginisation (yellow crusting) evident at its superior margin (Fig. 1). The ulcer had a necrotic centre and had caused a complete destruction of the anatomy of the left eye. No cervical lymphadenopathy was detected and there was an incidental parotid swelling on the contralateral side.

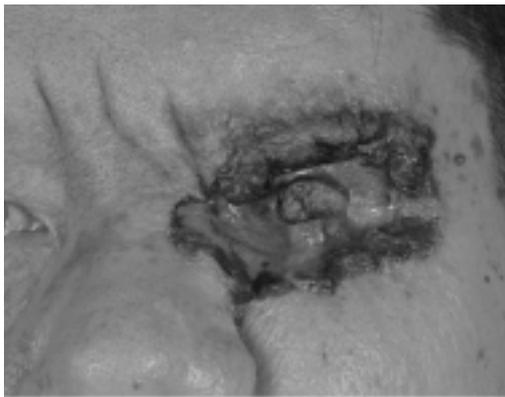


Fig. 1. An ulcer with irregular margins and necrotic centre with complete destruction of the left orbit.

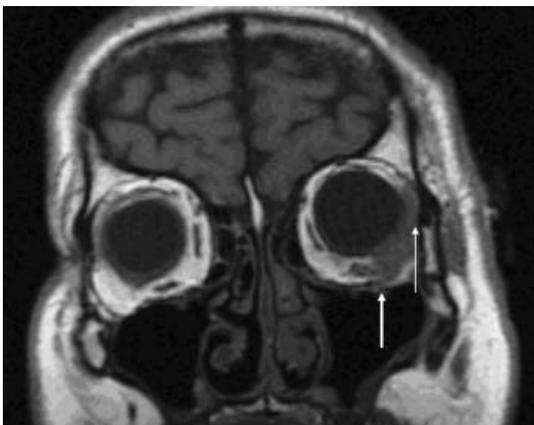


Fig. 2. Infiltration of the frontal process of the maxilla (thick arrow) and encasement of the lateral rectus muscle (thin arrow) by tumour on the left side on the coronal view of the magnetic resonance imaging.

Computed tomography (CT) of the orbit did not reveal any orbital or bony involvement but magnetic resonance imaging (MRI) of the orbit demonstrated breaching of the floor of the left orbit (maxilla) and infiltration of the left lacrimal sac by tumour (Fig. 2).

What is the diagnosis?

- A. Squamous cell carcinoma
- B. Basal cell carcinoma
- C. Sebaceous carcinoma
- D. Melanoma
- E. Porocarcinoma

### Discussion

Histology and immunohistochemical stains revealed that the tumour was a basal cell carcinoma (BCC) of the infiltrative subtype. BCC is the commonest skin cancer seen in Singapore.<sup>1</sup> It occurs in all races but Chinese are 3 times more likely to be afflicted than Malays and Indians.<sup>1</sup> BCC affects both males and females almost equally (ratio of 1:0.95 respectively).<sup>2</sup> It affects mainly elderly individuals and the mean age of occurrence is 71 years.<sup>2</sup> Eighty-four percent of all BCCs occur in the head and neck region with the commonest site being the nose (33.8%).<sup>2</sup>

The most common and best known type of BCC is the nodular form. They have typical features of raised rolled-over pearly edges, central ulceration and surrounding telangiectasiae. The aggressive types consist of the infiltrative, micronodular and morpheic forms, and they constitute both diagnostic and therapeutic challenges. In the infiltrative type, the tumour cells invade between the collagen fibres in thin strands, resulting in the absence of the typical features seen in nodular BCC and an unapparent tumour margin. Our patient had consulted doctors in the years before the tumour rapidly expanded, and he had not been told of the clinical suspicion of carcinoma.

A review of the literature suggests that malignancies affecting the orbit are uncommon, but if they do occur, 95% of such cases arise from orbital metastases or local extension from peri-ocular neoplastic processes. Soysal<sup>3</sup> found, by way of a retrospective review of the histologies of 68 patients with orbital exenterations, that BCC is the second most

Answer: B



Fig. 3. Immediate postoperative result of rectus abdominis flap reconstruction following wide excision of the tumour, orbital exenteration, and maxillectomy.

common tumour (38.2%) causing orbital invasion, with squamous cell carcinoma being the most common type (45.5%). The significance of orbital invasion by cancer is not only resultant loss of vision, but contiguous spread can also involve the cavernous sinus, causing disabling hemispheric strokes from thrombosis of the internal carotid artery siphon.

In our patient, further staging radiological studies were performed and CT scans of the brain, thorax, abdomen and pelvis revealed 2 subcentimetre indeterminate nodules along the horizontal fissure of the right lung without evidence of gross metastases or lymph node enlargement. Our patient underwent successful wide excision of the tumour, including the frontal process of his left maxilla and the lateral process of his zygoma, together with left orbital exenteration and rectus abdominis flap reconstruction of the facial defect (Fig. 3). Intra-operative biopsies confirmed the presence of tumour infiltrating the left orbit and the floor of the excised portion of maxillary bone. He was subsequently scheduled for radiotherapy.

In peri-ocular malignancies that metastasise, they most commonly do so through the lymphatic route. This occurs via the peri-parotid lymph nodes which drains into the deep cervical chain, and thereafter enters the systemic circulation. Jeong et al<sup>4</sup> revealed that of the 8 patients in their study with metastatic peri-orbital cutaneous malignancies, 7 of them arose from the medial half of the face and all of them had clinico-pathological evidence of cervical lymphatic involvement by cancer. This is significant as the most common site of BCC in Singapore is the nose and 46.5% of BCC arise from the medial half of the face (nose and inner

canthus of eye).<sup>3</sup> Fortunately, the incidental parotid swelling for our patient was on the contralateral side (most likely benign salivary gland neoplasm) and imaging did not detect any metastases. Nonetheless, as our patient turned out to have the infiltrative subtype of BCC (other subtypes of BCCs rarely result in distant spread), the indeterminate nodules found on CT thorax would have to be kept under close surveillance in view of its greater potential of metastases.

The best cosmetic outcome for BCC in the peri-ocular region would be by Mohs surgery. However, as in our case of extensive tumour destroying the eye orbit, the treatment of choice would be surgical excision with orbital exenteration. The recurrence rates for such destructive cutaneous peri-orbital malignancies are high though, reaching close to 60%, with a 5-year survival rate of 56%.<sup>5</sup> In patients who refuse surgery or when surgery is not feasible (for instance if the tumour has invaded the cavernous sinus and the internal carotid artery), palliative radiotherapy would be the only choice of treatment.

## Conclusion

In summary, this article aims to bring to physicians' awareness the infiltrative subtype of BCC. This case illustrates its destructive capacity, and that it has to be recognised and treated expediently in its earlier stages.

## REFERENCES

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