The treatment of iris melanoma is controversial because of its low metastatic potential. Many authorities advocate that no intervention is required unless progressive enlargement or uncontrolled glaucoma supervenes. In those cases where treatment is deemed to be appropriate then iridectomy or iridocyclectomy is performed.[6] Glaucoma filtering surgery such as the Scheie procedure,[7] iridencleisis[8] and trabeculectomy[9] are associated with extraocular seeding of the tumour and metastasis.

The diagnosis in our patient was made clinically. Iridocyclectomy was the only surgical procedure performed. There was no evidence of recurrence of the tumour at the site of excision on follow-up for 2 years. When the patient presented with a melanoma on the inferior iris, the margins of the iridocyclectomy did not show any evidence of recurrence. We believe that the melanoma at the 6 o'clock position was most probably caused by seeding from the primary melanoma, either spontaneously or during iridocyclectomy.

To the best of our knowledge this is the only reported case of this type. It shows conclusively that seeding of iris melanoma can occur during surgical excision of the tumour.

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Sir,

Pulsatile visual phenomenon, ipsilateral to a metastatic orbital carcinoid, occurring during usage of sildenafil (Viagra)

Bilateral visual symptoms are frequent with usage of sildenafil (Viagra, Pfizer), an inhibitor of phosphodiesterases that are involved in control of vascular tone. Orbital carcinoid metastases are rare and tend to arise from primary bowel tumours. We present a patient with orbital carcinoid in whom the first symptom was an ipsilateral, pulsatile visual disturbance after each use of sildenafil.

Case report

A 60-year-old man presented with 9 months of diplopia, initially occurring only on upgaze but later affecting primary fixation, and 3 months of right proptosis and variable eyelid swelling. On 12 occasions over the preceding 18 months the patient had also noted a blue light in the central field of the right eye, pulsating coincidentally with his heartbeat. The phenomenon, associated with ipsilateral forehead 'warmth', occurred only within 30 min of each ingestion of sildenafil. The symptoms lasted 3–4 h, consistent with the pharmacokinetics and pharmacodynamics of sildenafil. The left eye was amblyopic and the patient had undergone hemicolectomy for a primary carcinoid tumour 10 years before this presentation.

Corrected acuities were Snellen 6/5 right and 6/24 left, with normal Ishihara colour testing and no relative afferent pupillary defect. There was global restriction of right eye movements (particularly upgaze), 4 mm right relative axial proptosis (Fig. 1) and a raised right intraocular pressure (26 mmHg right, 20 mmHg left). The right optic disc was normal and the left hypoplastic.

CT scan demonstrated enlargement of the posterior half of the inferior rectus, in continuity with an ill-defined apical intraconal mass displacing the optic nerve upwards (Fig. 2). Transconjunctival biopsy showed islands of polyhedral cells with granular eosinophilic cytoplasm, some nuclear pleomorphism and sparse, but readily identified, mitotic activity. Immunohistochemistry was positive for CAM5.2, neuron-specific enolase, synaptophysin, chromogranin and PGP9.5, suggesting a neurosecretory tumour.

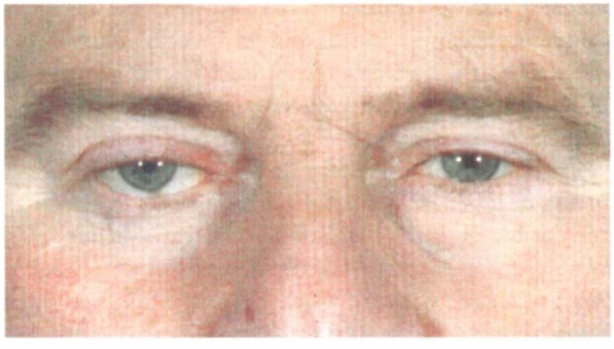

Fig. 1. *Photograph showing the 4 mm right relative relative axial proptosis.*

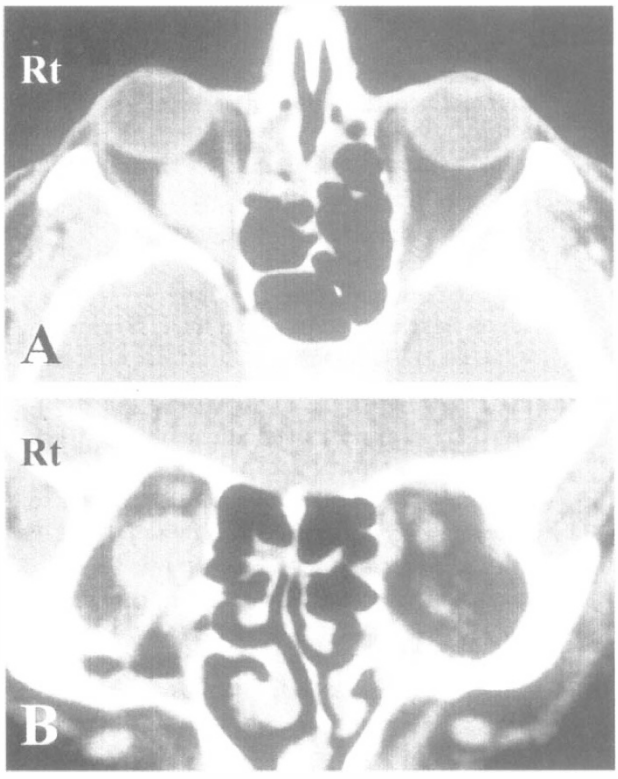

Fig. 2. *CT scans showing right proptosis due to massively enlarged inferior rectus muscle.*

The patient underwent lens-sparing external beam fractionated orbital radiotherapy to a cumulative dose of 35 Gy, in 15 fractions over 21 days. During this period the patient was systemically staged. Bone scan, abdominal ultrasound, chest X-ray and mIBG scan excluded metastatic disease at other sites. The mIBG scan was positive – a feature of chromaffin-granule-containing neuroendocrine tumour cells – only in the orbital metastasis.

The patient elected to cease sildenafil use following diagnosis of metastatic carcinoid, and has not been rechallenged following radiotherapy.

Comment

Sildenafil was developed as a phosphodiesterase (PDE) inhibitor for patients with angina, to prolong cyclic guanoside monophosphate (cGMP) activity and the vasodilatory action of nitric oxide in vascular smooth muscle. The drug has, however, greatest affinity for type 5 PDE, found in penile erectile tissue, and is useful in the treatment of erectile impotence.

Reported visual side effects include temporary blurring or loss of vision, changes in colour perception (green or blue tingeing) and photophobia. These are probably due to inhibition of retinal type 6 PDE (cGMP being present in, and maintaining hyperpolarisation of, photoreceptors), and reversible drug-induced electroretinographic changes have been shown in volunteers. Retinal side-effects should not be unexpected, as the antagonist activity of sildenafil against type 6 PDE occurs at only 10 times the minimum inhibitory concentration of that required for type 5 PDE.

In view of the known vasodilatory effect of sildenafil, it might be expected to cause choroidal hyperaemia, increase ocular blood flow, and may predispose to vaso-occlusive disease. There are reports of increased intraocular pressure, third cranial nerve palsy, retinal venous or arterial occlusion and ischaemic optic neuropathy, although the incidence might not be higher than that expected in an elderly population at risk of vaso-occlusive disease.

Ocular metastatic carcinoid is rare[1–5] and visual symptoms include diplopia (due to the mass or due to myopathy[6]) or visual loss due to choroidal metastases or tumour-associated retinopathy.[2,4,7] Carcinoid tumours arise from neuroendocrine cells in gut or lung, and tumour cells typically contain numerous membrane-bound neurosecretory granules containing one or more neuropeptides amines (commonly serotonin, but also corticotrophin, dopamine, histamine, kallikrein, kinins, neurotensin, prostaglandins or substance P[8]). Release of these substances into the systemic circulation causes the 'carcinoid syndrome', with episodic flushing, wheezing, diarrhoea, and eventual development of valvular heart disease.

Whilst carcinoid syndrome implies the presence of hepatic metastases, release of vasoactive amines from an orbital deposit might have an effect on local vascular tone – particularly branches of the ophthalmic artery and the orbital veins. This local effect of carcinoid peptides – together with any action of, or interaction with, the drug sildenafil – might have been the cause for the unilateral and pulsatile nature of symptoms in this case. The patient's left amblyopia cannot, however, be excluded as the cause of a unilateral *perception* of symptoms, and the promixity of tumour to the optic nerve and ophthalmic artery, with compressive optic neuropathy and vascular compression, could account for the pulsatile nature.

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Sir,

Necrotising fasciitis managed without any surgical intervention

Necrotising fasciitis is an uncommon and severe soft tissue infection characterised by cutaneous gangrene, suppurative fasciitis and vascular thrombosis usually preceded by trauma in patients with systemic problems, such as diabetes mellitus, alcoholism and intravenous drug abuse. We present a case of periorbital necrotising fasciitis which we managed without any surgical intervention and attained a satisfactory outcome.

Case report

A 74-year-old alcoholic man with diabetes mellitus and chronic liver failure presented to the Accident and Emergency Department with a history of non-traumatic swelling of his right upper/lower eyelids, and the right side of his face, associated with severe pains over a few hours. Examination demonstrated a visual acuity of CF in his right eye and 6/24 in the left eye unaided with no improvement with pinholes. There was marked right periorbital oedema with a dusky grey-blue appearance of the skin with surrounding irregular erythematous border and a necrosed area on the nasal aspect of his right upper lid, with an eschar 1.0 × 1.5 cm (Fig. 1). Swelling extended down the right side of his face, neck and across his nose to the left lower lid. There was right axial proptosis of the globe with decreased motility, no right afferent pupillary defect and fundoscopy revealed mild pallor of both optic discs. He had a right facial palsy and his face was markedly tender and febrile to touch. No crepitus or lymphadenopathy was found.

Given his acute history and immunocompromised state, a diagnosis of necrotising fasciitis was made. He was started on intravenous clindamycin, cefotaxime and metronidazole. CT scan showed soft tissue swelling around the right eye with no collections and normal sinuses. He had an elevated white blood cell count and blood cultures were negative, but wound culture grew group A beta-haemolytic streptococcus. The cefotaxime was then replaced with high doses of benzylpenicillin every 4 h.

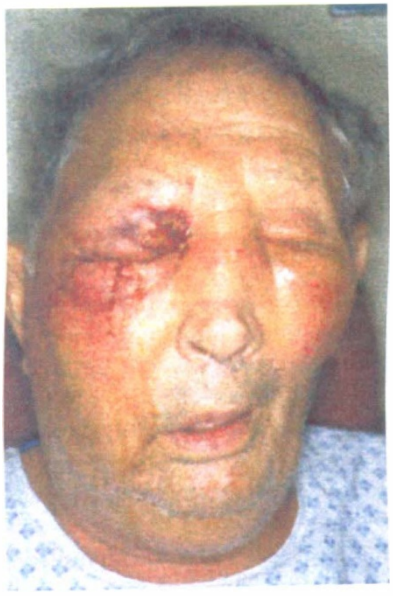

Fig. 1. *Swelling of the right upper/lower lids extending down the face and to the left lower lid.*

After 3 days the swelling and erythema extended to the pretracheal fascia and down the right side of his chest wall, just below the nipple line. He now had multi-organ system failure and was admitted to the Intensive Therapy Unit (ITU) for close monitoring and airway management. High doses of benzylpenicillin were maintained and his condition improved over the next 4 days when he was discharged from the ITU. The cellulitis was now resolving, but the right eye condition did not improve. The globe was now displaced laterally and downwards, with a small sinus discharging from the lateral aspect of the right lower lid. A second CT scan failed to show any collections. He was then referred to Moorfields Eye Hospital where the diagnosis was confirmed and he remained on intravenous antibiotics with no surgical debridement. The patient's condition

Fig. 2. *Resolution 1 year later with minimal lid scarring.*