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Using low dose oral nifedipine to prevent cancellation of cataract surgery for patients with preoperative hypertension

Cancellation of cataract surgery on the day due to raised blood pressure (BP) is a great disappointment for the patient and, unless the slot can be refilled at the last minute, will cost the hospital the difference between the national tariff and the cost of consumables, ie, about £600. Raised BP during intraocular surgery is a risk factor for suprachoroidal haemorrhage and systemic vascular events. Surgeons will reasonably defer cataract surgery, when they consider the BP to be poorly controlled.

At our unit preoperative assessment is carried out by nurses over the telephone to save patients a separate hospital visit. Patients who have not had their BP checked within the preceding 3 months are asked to visit their general practitioner. On the day of surgery, if systolic BP >200 or diastolic >100 mmHg, despite a period of rest, patients under the care of one surgeon (TR) were given nifedipine 5 mg orally regardless of existing treatment (not sublingually), if they denied anxiety. Anxious patients are offered temazapam 10 mg.

Table 1 shows the BP recordings of 17 such patients over 27 months who were given nifedipine. The second reading of patients 4, 13, and 14 in Table 1 were marginally below the above thresholds but were included as nifedipine was still given. Surgery proceeded uneventfully in all 17 cases. These patients were among the 93% of cataract patients at this unit who have surgery without an anaesthetist present, ie, broadly

Table 1	Blood pressure recordings (mmHg) before and 30 min
after oral	(not sublingual) nifedipine 5 mg

Patient	Age	Sex	Pre-treatment 1	Pre-treatment 2	Post-treatment
1	68	М	184/108	186/110	158/92
2	71	F	180/104	184/100	166/82
3	62	F	182/108	178/102	162/90
4	69	F	186/100	188/98	166/86
5	66	Μ	184/116	182/110	158/96
6	76	F	188/112	186/100	168/96
7	85	F	201/104	198/102	145/70
8	62	Μ	200/105	194/103	159/59
9	75	F	195/93	196/108	140/85
10	65	Μ	173/98	200/98	165/85
11	62	М	170/108	160/105	140/80
12	88	М	204/128	200/120	175/84
13	58	F	174/104	196/97	158/92
14	75	F	200/98	194/69	138/72
15	75	F	202/137	190/100	137/65
16	51	F	180/120	171/106	180/99
17	76	М	220/90	200/90	170/79

those patients who are free of symptoms at rest, no acute vascular events within 3 months and including, for this surgeon, patients unable to lie flat.¹ Full emergency medical support could have arrived within minutes if called. All patients were advised to have their BP treatment reviewed by their general practitioner.

Outside ophthalmology, the use of nifedipine preoperatively is not unusual. Weksler *et al*² showed that intranasal nifedipine (10 mg) was safe to use for this purpose in 589 'controlled' hypertensive patients with diastolic BP between 110 and 130 mmHg immediately before surgery. Swallowed nifedipine must lower BP more gradually and therefore be safer still.

The Royal College of Ophthalmologists guidelines state that hypertension should be controlled before the patient is scheduled for surgery.³ Nevertheless, there will always be poorly controlled patients on the day of surgery. Problems will admittedly be less frequent in eye departments with obligatory preoperative visits, but these have implications of cost and inconvenience. Nifedipine would have saved this hospital over £10000, if these 17 patients had otherwise been cancelled without being replaced.

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Sir,

Pott's puffy tumour: a rare but sinister cause of periorbital oedema in a child

Pott's puffy tumour (PPT), first described by Percival Pott in 1760, refers to a doughy, indolent swelling over the forehead caused by an underlying subperiosteal abscess of the frontal bone. It typically affects adolescent male subjects with frontal sinusitis and presents to ENT or neurosurgeons. However, we describe an unusual case occurring in a 7-year-old child and presenting with periorbital oedema.

Case report

A 7-year-old Caucasian boy presented to A&E with a 3-day history of non-erythematous, non-tender, tense swelling of his left upper lid, completely occluding the eye and extending above the brow. This was associated with mild headaches, vomiting, and intermittent pyrexia, which his mother attributed to a recent cold. Right eye examination was unremarkable. Blood tests revealed a CRP = 245, a raised white cell count and a mild hyponatraemia. An unenhanced orbital/sinus CT confirmed ethmoido-maxillary sinusitis but no postseptal orbital involvement. The patient was admitted and treated with 48 h of intravenous benzylpenicillin and flucloxacillin, followed by discharge on oral antibiotics. Ophthalmic review 1 week later found him systemically improved but with his left lid unchanged. An MRI head again confirmed no orbital pathology. However, a large subperiosteal abscess was now identified in the frontal bone, underlying the brow swelling, as well as an intracranial extradural abscess. The patient was immediately transferred for neurosurgical decompression, which, together with paranasal sinus drainage and intravenous clindamycin, enabled him to make a full recovery.

Comment

PPT is thought to arise from the haematogenous spread of septic emboli through the valveless veins of the frontal sinus mucosa to the marrow of the frontal bone.^{1–3} It is associated with intracranial infection, both from direct and indirect spread, and carries significant mortality.^{1–3} Although less common in children due to late

development of the frontal sinus, over 25 paediatric cases have nonetheless been reported in the non-ophthalmic literature.^{1–4} These often have occult sinusitis.⁴ Periorbital swelling is described in approximately 30% of PPT cases, caused by downward spread of fluid, suggesting that PPT should be considered in the differential of periorbital oedema, especially if extending above the brow. Detailed cranial imaging, preferably MRI, is essential to confirm the diagnosis and highlight any associated intracranial pathology^{4,5} (Figure 1–3).



Figure 1 Unenhanced coronal CT scan of orbits and sinuses showing left maxillary/ethmoid sinus opacification but no postseptal orbital pathology.

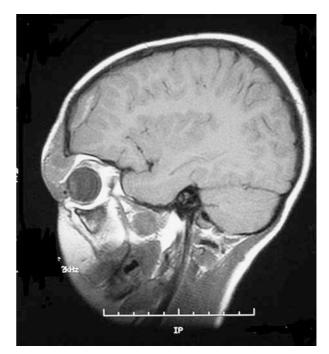


Figure 2 Sagittal MRI section (T1 weighted) showing Pott's puffy tumour and intracranial extradural abscess.