Forehead swelling and frontal headache: Pott's puffy tumour

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DESCRIPTION

Pott's puffy tumour is a surgical emergency and an extremely rare complication of frontal sinusitis.¹ It is characterised by osteomyelitis of the frontal bone with an associated subperiosteal abscess.²

A 61-year-old man presented to the emergency department with a 5-day history of worsening frontal headache associated with a left-sided forehead swelling. He denied any history of trauma, vomiting, visual disturbance, photophobia, fever or rhinorrhoea. On examination, he had a 6×6 cm erythematous, tender, fluctuant, soft tissue swelling on the left side of his forehead. He had no focal neurological deficit or evidence of orbital cellulitis.

Five months ago, he had complicated left frontal sinusitis with secondary Pott's puffy tumour which was drained by means of frontal trephination (small opening in the floor of the frontal sinus to facilitate drainage). This was followed up with endoscopic left frontal sinus exploration and widening of the left frontonasal duct (frontal sinus outflow pathway).

The patient was thought to have had a recurrence of Pott's puffy tumour and was started on intravenous antibiotics. A CT scan of his paranasal sinuses and head showed a fluid-filled left frontal sinus with subperiosteal collection overlying the frontal bone (figure 1A). A communication between the subperiosteal collection and the superior part of the left frontal sinus was seen on MRI (figure 1B). The abscess collection on his forehead was drained and he underwent open and endonasal endoscopic frontal sinus exploration and drainage. A repeat CT scan of the sinuses showed resolution of the disease and he made an uncomplicated recovery.

Figure 1 Pott's puffy tumour. (A) CT scan of the sinuses showing opacification of the left frontal sinus. (B) Sagittal MRI showing subperiosteal collection communicating with superior part of the left frontal sinus.

Learning points

- ▶ Pott's puffy tumour is a serious complication of untreated frontal sinus disease and is a surgical emergency as life threatening intracranial complications can occur.
- ▶ CT scan of the paranasal sinuses and head is the diagnostic investigation of choice. If there is evidence of intracranial complications, MRI may be used to assess the extent of the disease.^{1 3}
- ▶ Pott's puffy tumour is managed by open and/or endoscopic sinus surgery.

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Competing interests None.

Patient consent Obtained.

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