

Image of the month: Don't neglect the sinus!

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Fig 1. Patient with R side orbital swelling and purulent discharge.

A 12-year-old boy presented with a swelling on the right eye along with high grade fever and headache for the past two days. On examination there was a diffuse erythematous swelling around the right eye along with purulent discharge (Fig 1). Except for mild conjunctival congestion, the rest of ophthalmological examination was normal. Anterior rhinoscopy revealed congested, edematous nasal mucosa with thick purulent discharge in the middle meatus. A provisional diagnosis of right side acute sinusitis with preseptal abscess was made. Computerised tomography (CT) scan (Fig 2) revealed fluid collection along with gas pockets in the preseptal region along with complete opacification of the right side maxillary and ethmoid sinuses. The culture revealed mixed infection by methicillin-resistant *Staphylococcus aureus* and *Peptostreptococcus* spp. Intravenous vancomycin and metronidazole antibiotics along with local drainage of the abscess and endoscopic sinus surgery to remove the purulent secretions resulted in complete resolution of the infection. The patient was asymptomatic at three months of follow up and had no residual visual disability. The sinuses are intimately related to the orbit and therefore infections from the sinuses can easily spread into the orbit, leading to a variety of complications ranging from preseptal cellulitis to life-threatening cavernous sinus thrombosis. The differential diagnosis includes facial infections, trauma, orbital tumors and dacryocystitis. CT scan is useful in determining the extent of orbital and sinus

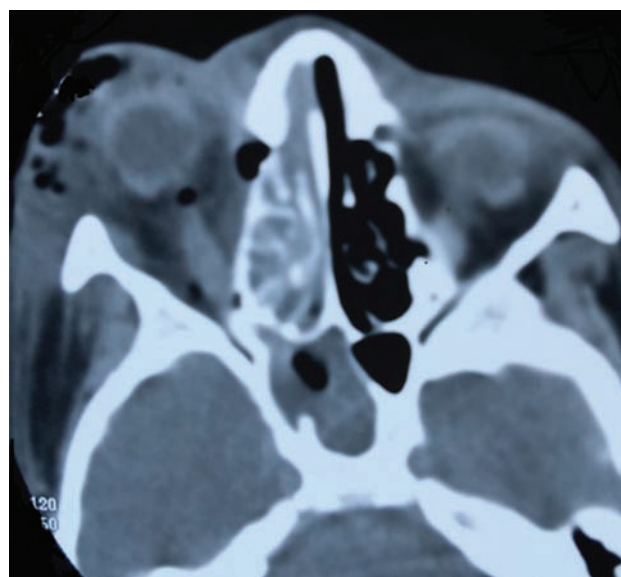


Fig 2. Computerised tomography scan of the patient with gas pockets in the right pre septal region and opacification of the right side maxillary and ethmoid sinuses.

involvement and for surgical planning. Treatment must be started early to prevent loss of vision and includes appropriate parental broad-spectrum antibiotics, surgical debridement of the involved sinuses and decompression of the orbit. The visual prognosis worsens dramatically as the infection spreads into the orbit. The mortality ranges from 10 to 30% with the development of cavernous sinus thrombosis.

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