Orbital Abscess Associated with Sinusitis from Odontogenic Origin

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Key words: adolescent, dental complications, odontogenic infection, orbital abscess, paranasal sinusitis, Peptostreptococcus species

(Inter Med 49: 523-524, 2010)
(DOI: 10.2169/internalmedicine.49.3198)

A previously healthy 11-year-old girl was admitted with a painful swelling of the left periorbital region 2 weeks following a treatment of dental caries (first left upper molar cavity treatment). Five days before her admission, maxillary sinusitis was diagnosed and amoxicillin was prescribed. Despite the antibiotic, the situation worsened. On admission, she was afebrile with left exophthalmos, periorbital chemosis and restriction of eye movements (Picture 1). Visual acuity of the left eye was 4/20. Cranio-orbital neuroimaging revealed a large left orbital abscess with intraorbital cellulitis and spheno-ethmoidal sinusitis.

Picture 1. Frontal view of the patient showing left eyeball proptosis, erythema, chemosis and periorbital swelling.

Picture 2. Contrast-enhanced cranio-orbital CT-scan: Axial view (A) and sagittal reconstruction (B) revealing a large orbital abscess on the left side (star) with intraorbital cellulitis and spheno-ethmoidal sinusitis.

Picture 3. Orbital MRI on T1-weighted image with gadolinium injection (coronal view) revealing a large ring-enhancing cystic mass in the left orbit (star) with severe indentation of the eyeball and temporal extension. Note the paranasal sinus inflammation.

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Received for publication November 29, 2009; Accepted for publication December 2, 2009
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and paranasal sinusitis (Pictures 2, 3). Laboratory studies were normal except for the elevated C-reactive protein level (37.7 mg/L). Orbital abscess was surgically drained (18 mL) and culture grew *Peptostreptococcus species*. A 2-month regimen of antibiotherapy was given (amoxicillin/clavulanic acid, metronidazole and gentamicin for one week) with corticotherapy and hyperbaric oxygen exposure. The improvement was remarkable.

This case should serve to emphasize the crucial requirement for intensive attention to ophthalmic, neurologic and paranasal symptoms following dental procedures (1, 2).

References


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