

Surgical treatment of superolateral orbital abscess in children: can we avoid an external incision?

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Background: Orbital abscess is a well-known complication of acute sinusitis. In the pediatric population, the most common pathologic pathway is through lamina papiracea, leading to a medially located subperiosteal abscess. Much less common is the propagation of infection from the frontal sinus resulting in superolaterally located abscess. While there is a general agreement regarding the indication and timing of surgical intervention in patients with orbital abscess, the review of literature does not yield the answer regarding the best approach. Since superolaterally located pathology in the orbit is hardly reachable through endoscopic endonasal approach, an external incision in the upper eyelid is the alternative. Patients and methods: We have analyzed our patients treated surgically for orbital abscess in a 10-year period and searched the literature available in PubMed. Results: Among the pediatric patients surgically treated for sinusogenic orbital abscess, we had five cases of superolaterally located abscess. Two cases were treated with simultaneous endoscopic drainage of the frontal and ethmoid sinus and external incision. Three cases have been treated only by endoscopic drainage of the frontal and ethmoid sinus with the idea that the abscess would drain through its original pathway of development. All patients had a complete resolution of abscess verified radiologically. Conclusion: In selected cases, the indirect drainage of endoscopically non-reachable orbital abscess by draining the frontal sinus can be adequate thus avoiding external incision.

Key words: Orbital, abscess, surgical, children