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### Potts Puffy Tumor: A Rare Complication of Rhinosinusitis

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### **Potts Puffy Tumor: A Rare Complication of Rhinosinusitis**

Pott's puffy tumor is a sub-periosteal abscess of the frontal bone with associated osteomyelitis. It arises as a complication of untreated or partially treated frontal sinusitis. Overall prevalence has decreased due to timely treatment with antibiotics. It is largely limited to the pediatric population and is rare in adults.

A 46-year-old Caucasian male with a history of chronic rhinosinusitis presented with one-week history of progressive painful swelling over the left forehead without any other systemic signs of infection. He was started on intravenous ampicillin-sulbactam and given one dose of dexamethasone due to concern for intracranial involvement. Facial CT showed 3 x 2 cm expansion of left frontal sinus into the overlying soft tissue with loss of frontal sinus cortex anteriorly, laterally, and medially as well as significantly thinned posterior wall. MRI brain with and without gadolinium confirmed the CT findings and ruled out intracranial involvement. He underwent bilateral functional endoscopic sinus surgery with bilateral frontal sinusotomy, total ethmoidectomy, maxillary antrostomy, and septoplasty (Draf III). Tissue cultures grew *Streptococcus intermedius*, *Staphylococcus lugdinensis* and few *Propionibacterium acnes*. He was discharged 3 days after surgery to complete a 6-week course of intravenous Ertapenem for osteomyelitis.

Pott's puffy tumor is an infectious process and not an oncologic process. It is a rare complication of untreated or incompletely treated sinusitis. Although more common in children, it should be considered in adults with rapidly growing painful forehead swelling. Diagnosis is made with CT of head and sinuses. Advanced imaging with MRI may be needed if there is a concern for intracranial extension, which can occur in up to 30% of cases. Management involves prompt intravenous antibiotics to cover gram positives and anaerobes. Steroids are added when intracranial extension is suspected. Endoscopic sinus surgery with drainage of abscess is the definitive treatment along with long-term intravenous antibiotics for osteomyelitis.