

## **POTT'S SWELLING TUMOR; A RARE COMPLICATION OF ACUTE FRONTAL SINUS SINUSITIS REPORTING TO A CASE**

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**Abstract:** Pott's swollen tumor is a rare complication of frontal sinusitis (4) which must be kept in mind in the differential diagnoses in the face of increased volume of the frontal region. It is most frequently observed in patients between 6 and 15 years old, although it can occur at any age (2). The diagnosis must be confirmed through imaging modalities (1), with computed tomography (CT) of the brain with contrast being an excellent study method. The case of a 14-year-old male patient who presented frontal pain associated with a 7-day increase in volume will be presented.

**Keywords:** Abscess, swollen Pott's tumor, sinusitis complications.

## INTRODUCTION

Knowing the clinical and imaging findings of Pott's swollen tumor is essential to make an early diagnosis and avoid possible intracranial complications, and it even allows us to rule out other differential diagnoses.

## CLINICAL CASE

A 14-year-old male patient with a history of recurrent sinusitis consulted the emergency department due to a 7-day increase in volume in the frontal region associated with pain. Laboratory tests revealed an increase in inflammatory parameters. A contrast-enhanced brain CT scan was performed, which confirmed a swollen Pott's tumor, ruling out intracranial lesions. The patient was admitted to the ward for surgical drainage, obtaining culture samples with the development of *Staphylococcus epidermidis*, for which broad-spectrum antibiotic management was associated.

## DISCUSSION AND DIAGNOSIS

When a swollen Pott's tumor is suspected, early diagnosis through adequate imaging increases the possibility of a good recovery (3).

Contrast-enhanced brain CT is an excellent study method to confirm the diagnosis and rule out complications; The typical findings of a brain CT are polysinus mucosal changes, in the bone window defects of the walls of the paranasal sinuses and enhancement of the walls of the lesion after the administration of contrast are frequently observed, which agree with the findings in the patient. Possible intracranial complications such as meningitis, frontal lobe abscess, venous sinus thrombosis, and orbital cellulitis, which were not present in the patient, must be ruled out.

The differential diagnoses to consider were malignant neoplasms such as non-Hodgkin lymphoma or metastases in the frontal sinus, as well as an infected frontal hematoma. The background and clinical history in addition to laboratory tests were essential to rule out the previously mentioned diagnoses.

## CONCLUSION

Pott's swollen tumor is a rare complication of sinusitis or trauma to the frontal sinuses, in which knowing its radiological manifestations is essential to make an early diagnosis that allows early initiation of treatment in order to avoid possible associated complications.

## IMAGES OF THE CASE

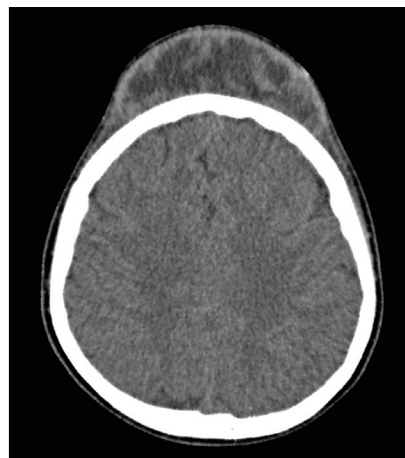


Figure 1



Figure 2

Brain CT without contrast (fig 1) with selected axial section showing a frontal collection with enhancement of its walls after contrast administration (fig 2).

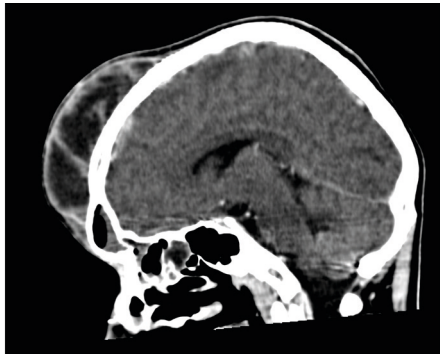


Figure 3

Brain CT with contrast sagittal section recognizing septated frontal collection and frontoethmoidal inflammatory mucosal changes. (Fig 3)

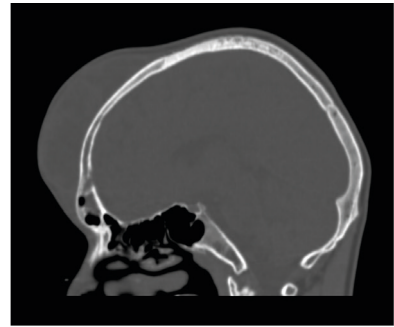


Figure 4

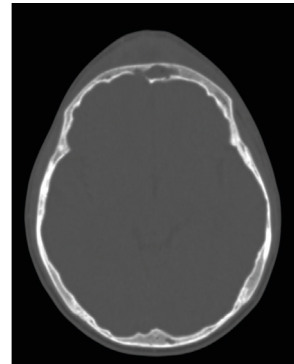


Figure 5

Brain CT sagittal section (Fig 4) and axial section (Fig 5) in bone window where frontal mucosal inflammatory changes are recognized in addition to erosive signs of the posterior wall of the frontal sinus.

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