



## SILENT SINUS SYNDROME

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**ABSTRACT** **Case:** An eighteen year old male patient presented with gradual regression of right cheek since three months. **Examination:** There was flattening of right malar eminence. Examination of eyes was normal. **Investigations:** Computerised tomography of paranasal sinus showed decrease in size and volume of right maxillary sinus compared to left. **Treatment:** Right middle meatal antrostomy and anterior ethmoidectomy was done to halt the progression of decrease in the size and volume of right maxillary sinus. Case being presented for its rarity.

## KEYWORDS :

## INTRODUCTION

Silent sinus syndrome is a rare condition that can pose a diagnostic challenge. The patient may present with unilateral ptosis or retraction, a deep superior sulcus or orbital asymmetry. The medical history is often noncontributory. This condition is characterized by unilateral spontaneous enophthalmos and hypoglobus due to increased orbital volume and retraction of the orbital floor. This occurs because of atelectasis of the ipsilateral maxillary sinus and, when the condition is left untreated, may result in complete obliteration of the sinus with worsening enophthalmos and hypoglobus.

Patients typically are unaware of preexisting sinus disease and deny orbitofacial trauma. Rarely, they will complain of vertical diplopia, although extraocular motility and the rest of the eye examination are usually normal. There is no gender or racial predilection, and patients tend to present during the third to fifth decade of life.

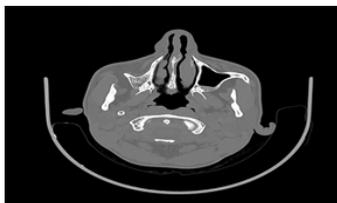
## CASE STUDY

- An 18 year old male patient presented with gradual regression of his right cheek since three months.
- There was no history of trauma or any other ENT complaints.
- Vision-normal.



## INVESTIGATIONS

- CT PNS revealed that there is decrease in size and volume of right maxillary sinus compared to left maxillary sinus.
- CT-PNS AXIAL VIEW



## CT-PNS CORONAL VIEW



## MANAGEMENT

- Managed surgically:
- After medialisation of Rt middle turbinate, Rt uncinectomy, Rt medial meatal antrostomy followed by Rt anterior Ethmoidectomy were done.
- By above surgical procedure progressive decrease in the size and volume of the right Maxillary sinus was halted, which was confirmed on regular follow up.

## CONCLUSIONS

- We found this case is worth presentation, as it will give us a knowledge of some conditions though rare but still find its way in routine ENT OPD.
- The maxillary sinus is the first sinus to appear (seven to ten weeks) as a shallow groove expanding from the primitive ethmoidal infundibulum into the mass of the maxilla.
- Absorption and expansion results in a small cavity at birth which measures 7 x 4 x 4 mm.
- It continues to grow during childhood at an estimated annual rate of 2 mm vertically and 3 mm anteroposteriorly.
- A standard maxillary sinus in an adult has a volume of around 15 to 30 cm<sup>2</sup> and is roughly pyramidal in shape.
- The base of this pyramid is formed by the medial wall of the maxillary sinus with the apex of the pyramid towards the zygomatic process.
- The sinus may become relatively enlarged in old age as a result of resorption of the alveolus secondary to loss of teeth.
- Silent sinus syndrome usually presents in the third to fifth decade, without a gender predilection.
- In general, the condition is idiopathic.
- In a small number of patients, trauma to the lateral nasal wall and osteomeatal complex may be the cause, e.g. nasotracheal intubation.
- Presentation is usually with painless and relatively long-standing (months to years) facial asymmetry, enophthalmos of 2-5mm, and diplopia.
- Extraocular movements are usually normal

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