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ORBITAL AND NASAL COMPLICATIONS OF FUNGAL SINUSITIS IN A IMMUNOCOMPROMISED PATIENT

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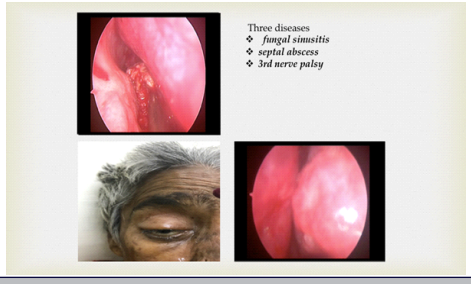
ABSTRACT

Despite availability of excellent antibiotics, orbital and nasal complications following sinusitis is rather common. Prevalence of life style disorders like diabetes mellitus has added to the woes. This article attempts to emphasize the role of Otorhinolaryngologist in early recognition and treating the three diseases such as fungal sinusitis/septal abscess/3rd nerve palsy in a patient with uncontrolled diabtes mellitus.



KEYWORDS

INTRODUCTION:

Most fungal sinus infections are benign or noninvasive. Fungal infections of the paranasal sinuses usually occur in individuals who are immunocompromised. However, recently, the occurrence of fungal sinusitis has increased in the immunocompetent population.

The most common pathogens are from *Aspergillus* and *Mucor* species. Aspergillosis can cause noninvasive or invasive infections. Invasive infections are characterized by dark, thick, greasy material found in the sinuses. Invasive infections can cause tissue invasion and destruction of adjacent structures (eg, orbit, CNS). Noninvasive infections cause symptoms of sinusitis, and the sinus involved is opacified on radiographic studies. Routine cultures from the sinuses rarely demonstrate the fungus. However, the fungus is usually suspected upon reviewing the CT scan result and is detected on removal of the secretions from the sinus.

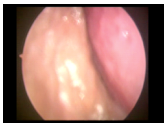
The more serious infection commonly occurs in patients with diabetes or in individuals who are immunocompromised and is characterized by its invasiveness, tissue destruction, and rapid onset. Early detection and treatment are vital for these infections because of the high mortality rate.

METHODOLOGY:

65 years old female presented to OPD with headache, right sided facial pain, b/l nasal obstruction and anosmia, right ptosis for one month. k/c/o diabetes mellitus since 15 years on treatment.

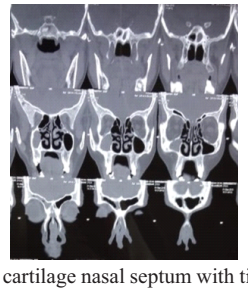
On examination:

- Anterior rhinoscopy – B/L septal swelling+
- Rt maxillary region – tenderness +
- Rt Eye -Ptosis+, Restriction of eye movements
- DIAGNOSTIC NASAL ENDOSCOPY: B/L septal abscess +,Rt purulent discharge in middle meatus ,Choanae – clear



I&D done and sent for pus culture and sensitivity showed no growth

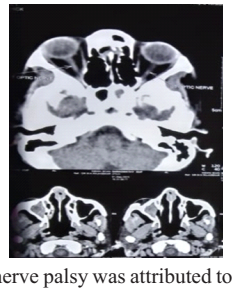
CT PNS :



Gross thickening of cartilage nasal septum with tiny air pockets (post septal abscess surgical drainage status)

Soft tissue density filling right maxillary sinus -chronic right maxillary sinusitis , Right maxillary infundibulum and ostium appear obstructed

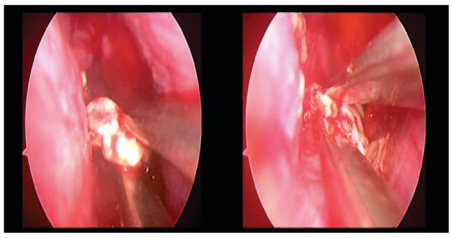
NEURO & OPHTHALOPINES:



- The cause of 3rd nerve palsy was attributed to Vasculitis secondary

to invasive fungal sinusitis.
- CT both Orbit – no mass lesion, b/l optic nerve –normal,bony wall of orbit – normal

SURGICAL MANAGEMENT:
- Patient underwent FESS under GA
- Endoscopic biopsy was taken and sent for Histopathological examination shows fragments of fungal colonies enclosing dichotomously acute angle branching septate fungal filaments with spores admixed with fragments of granulation tissue and cartilage - suggestive of ASPERGILLUS FUNGAL LESION makes the certain diagnosis in this case.



CT scan, MRI, and Nasal endoscopes increased the awareness to this disease spectrum. The diagnosis was based on an otolaryngological, ophthalmological, imagistic but histopathological examination suggestive of Aspergillus fungal lesion make the certain diagnostic in this case.

RESULTS:
Complete surgical removal of fungal lesions in right maxillary sinus with I & D is effective in improving the function of the nose and treating the 3rd nerve palsy in a immunocompromised patient.

CONCLUSION:
Our purpose was to emphasize the need of early recognition and prompt initiation of combined medical treatment and surgical intervention with the intent to preserve the involved vital structures.