



ORIGINAL RESEARCH PAPER

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RARE CASE OF FUNGAL SINUSITIS WITH ORBITAL CELLULITIS WITH DIABETES MELLITUS TYPE 1 (A CASE REPORT)

KEY WORDS:

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ABSTRACT

AIM- To study case of fungal rhinosinusitis with orbital cellulitis with DKA in adolescent.

METHADODOLOGY-Medical management for DKA ,followed by surgical management i.e. FESS for fungal rhinosinusitis with orbital decompression.

RESULT-post operative sinuses were clear, vision improved,orbital symptoms relieved.

CONCLUSION/SUMMARY-Wound debriement(surgical) with antifungals (medical) is the best management for such a case.

CASE DETAILS

- A 17yrs male came to SAIMS emergency at around 8 PM on 16/9/2017. Patient had chief complaints of right periorbital swelling & right cheek swelling since 15 days.
- Swelling was gradually progressive and was associated with fever, pain,redness over local area and lacrimation.
- Swelling extended to right cheek area and had diminished right eye vision.
- Tracheostomy was done and he was put on ventilator.

In the due course in the hospital he developed swelling over right eye.

- Left sided paranasal sinuses and nasal cavity appears unremarkable
- Right perisinusal fat planes are dirty and the edema is extending further in right pterygoid fossa
- left maxillary sinus is clear
- The pathology is extending in the right orbit and is causing severe inflammation in the extra as well as intra coanal fat planes with involvement of medial rectus.
- Indentation seen on optic nerve, mass effect also seen in right eye globe ,which is therefore pushing the globe laterally/anteriorly.



FIGURE-1,PATIENT CONITION ON ADMISSION

RADIOLOGICAL INVESTIGATION

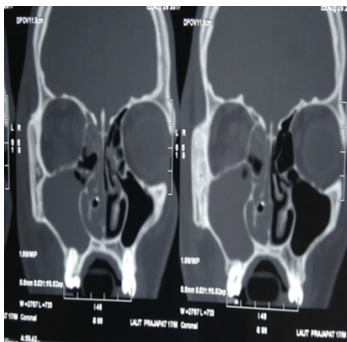


FIGURE-2,CT-PNS

- CTSCAN –
- Right dns noted.
- There was Extensive mucosal soft tissue density, mucosal thickening with air fluid level causing near complete opacification in right half of nasal cavity and i/L paranasal sinuses with obliteration of drainage pathways suggestive of rhinosinusitis.
- Also,Introconal fat along with thickening of extraocular muscles causing right eye proptosis.
- Thinned out lamina papyracea
- The medial and inferior rectus muscle is enlarged with surrounding fat stranding suggestive of myositis /pseudotumour secondary to inflammatory sinus disease.
- No obvious intraorbital or subperiosteal loculated collection is noted

IMPRESSION-FUNGAL INVASIVE SINUSITIS



FIGURE-3 MRI

MRI CONTRAST was performed-

S/O – heterogenous opacities in periorbital and ethamoids suggestive of fungal sinusitis.

SURGERY

OT procedure functional endoscopic sinus surgery (FESS) Under general anesthesia was planned.

With the FESS consent and a high risk consent signed by the patient ,patient was intubated.

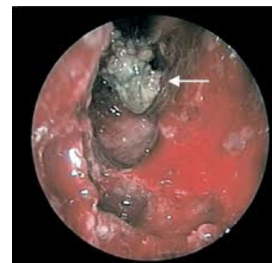


FIGURE 4-INTRAOPERATIVE FINDNG

- Debridement was done, anterior ethmoidectomy was done and mucopus with polypoidal mucosa was cleared off.
- Then Posterior ethmoidectomy done, ostia were widened, mucopus cleared.
- Thinned Lamina papyracea was removed and orbital decompression done and disease cleared. Sphenoid ostium opened and polypoidal tissue was cleared off.

Histopathology

- Microscopically section showed fibrocollagenous tissue with dense mixed inflammatory cell infiltrate forming abscess. focal area show septate fungal hyphae with right angle branching.
- PAS stain confirmed fungal hyphae.

IMPRESSION:

CHRONIC FUNGAL INFECTION

ACKNOWLEDGMENTS-

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REFERENCES

1. <https://zbib.org/Ob1afaa088354977a5fdb23e7c1fa97d>
2. Allphin, Allan L., et al. "Allergic Fungal Sinusitis: Problems in Diagnosis and Treatment." *The Laryngoscope*, vol. 101, no. 8, Aug. 1991, p. 815-820. Crossref, doi:10.1288/00005537-199108000-00003.
3. Bentii, J., and F. Kuhn. "Diagnosis of Allergic Fungal Sinusitis." *Otolaryngology - Head and Neck Surgery*, vol. 111, no. 5, Nov. 1994, pp. 580-88. Crossref, doi:10.1016/S0194-5998(94)70525-9.
4. Cooper, J. Alle. D., et al. "Invasive Aspergillosis of the Lung and Pericardium in a Nonimmunocompromised 33 Year Old Man." *The American Journal of Medicine*, vol. 71, no. 5, Nov. 1981, pp. 903-07. Crossref, doi:10.1016/0002-9343(81)90396-X.
5. Ence, Bradford K., et al. "Allergic Fungal Sinusitis." *American Journal of Rhinology*, vol. 4, no. 5, Sept. 1990, pp. 169-78. Crossref, doi:10.2500/105065890782009415.
6. Gillespie, M. Boyd, et al. "An Approach to Fulminant Invasive Fungal Rhinosinusitis in the Immunocompromised Host." *Archives of Otolaryngology-Head & Neck Surgery*, vol. 124, no. 5, May 1998, p. 520. Crossref, doi:10.1001/archotol.124.5.520.
7. Katzenstein, A., et al. "Allergic Sinusitis: A Newly Recognized Form of Sinusitis." *Journal of Allergy and Clinical Immunology*, vol. 72, no. 1, July 1983, pp. 89-93. Crossref, doi:10.1016/0091-6749(83)90057-X.
8. Kupferberg, S., et al. "Prognosis for Allergic Fungal Sinusitis." *Otolaryngology - Head and Neck Surgery*, vol. 117, no. 1, July 1997, pp. 35-41. Crossref, doi:10.1016/S0194-5998(97)70203-1.
9. Pillsbury, H. C., and N. D. Fischer. "Rhino cerebral Mucormycosis." *Archives of Otolaryngology - Head and Neck Surgery*, vol. 103, no. 10, Oct. 1977, pp. 600-04. Crossref, doi:10.1001/archotol.1977.00780270068011.