

Background:

Mucormycosis which is an invasive fungal disease and commonly seen in immunocompromised patients is very rare in the diabetic children. High morbidity and mortality rate can be seen in the mucormycosis.

Case Report:

We present a case with type 1 diabetes with mucormycosis. A 14-year-old male patient was referred to our department due to polyuria, polydipsia, weight loss, headache, altered consciousness, fever, and rhinorrhea. After the diabetic ketoacidosis treatment, right facial paralysis, anisocoria, and ptosis were noted (Figure 1). MRI revealed fronthoethmoid fungal sinusitis, orbital cellulitis, frontobasal cerebritis and abscess formation (Figure 2). Mucormycosis was confirmed by biopsy (Figure 3). Amphotericin B and posaconazol treatment were started. Hyperbaric oxygen treatment as adjuvant was commenced on the 30 days of antifungal treatments. Regression of fungal lesions were demonstrated by MRI (Figure 4). The patient is still on oral posaconazol treatment which is planned to continue for 1 year. He is followed up by neurologically for unilateral vision loss and facial paralysis.



Figure 1: Note the ptosis on the right eye and debilitated appearance of the patient.



Figure 3: Specimen shows broad, infrequently septated, thin-walled hyphae.

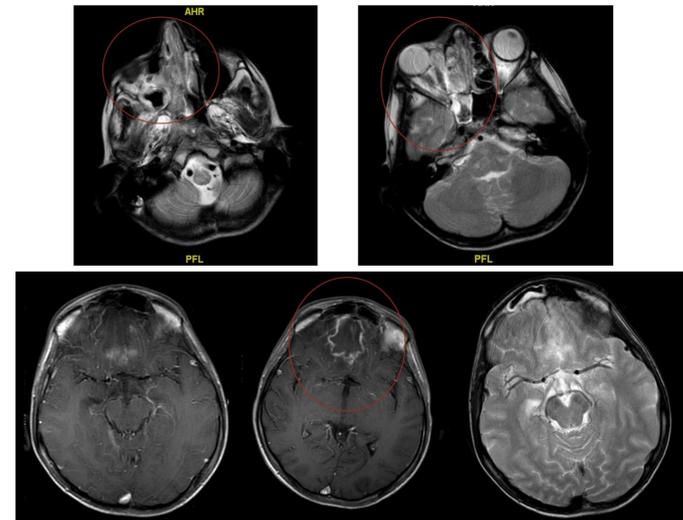


Figure 2: MRI shows fronthoethmoid fungal sinusitis, orbital cellulitis, frontobasal cerebritis and abscess formation

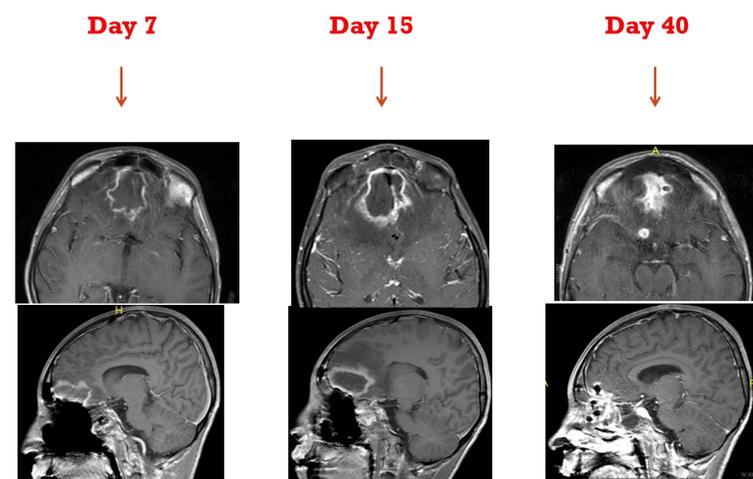


Figure 4: MRI shows regression of fungal lesions on the treatment of posaconazol and hyperbaric oxygen (after 10 days on the hyperbaric oxygen treatment).

Conclusion:

It should be kept in mind that untreated or uncontrolled diabetes causes immune deficiency which is a risk for mucormycosis. Early detection and treatment of mucormycosis is very important to reduce morbidity and mortality.

References

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2. Manesh A, John AO, Mathew B et al. **Posaconazole: an emerging therapeutic option for invasive rhino-orbito-cerebral mucormycosis.** Mycoses. 2016 Jul 22. doi: 10.1111/myc.12529.
3. Bonifaz A, Tirado-Sánchez A, Calderón L et al. **Mucormycosis in children: a study of 22 cases in a Mexican hospital.** Mycoses. 2014 Dec;57 Suppl 3:79-84.