

Aspergillosis of the Paranasal Sinuses

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Background:

Even today mycotic infection of the maxillary sinus is not a very rare disease. In most cases, Aspergillosis is the underlying pathogen and is associated with root canal filling - contains zinc oxide - that has been pressed into the maxillary sinus through the root tip. Most of the time aspergillosis remains non-invasive. However, the invasive form presents itself with a life-threatening condition due to potential destructive cranial progression. Often times diabetic or immunocompromised patients are affected.

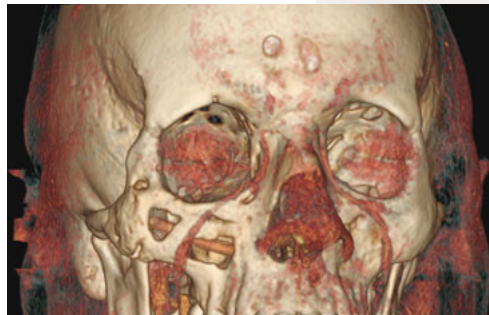
Methods:

We exemplarily choose 3 patients with a histopathological diagnosed mycosis of the maxillary sinus, we treated in our clinic.

Patient 1 (male, 68 years old) was transferred to us from the Department of Neurology after suffering from therapy-resistant headaches for two weeks and sudden paresis of the third cranial nerve. A sinusitis maxillaris due to aspergillus fumigatus with affection of the left orbita and complete paralysis of the oculomotoric nerve could be diagnosed.

Patient 2 (male, 59 years old) presented himself with painless swelling of the cheek without dentogenic focus. The underlying cause was right-sided rhinocerebral mucor-mycosis due to chronic sinusitis maxillaris with subtotal destruction of the zygomatic bone.

Patient 3 (female, 80 years old) was transferred from the Department of Ophthalmology due to left-sided periorbital swelling. The underlying cause was sinusitis due to aspergillosis infection.



Pat 2 CT Scann

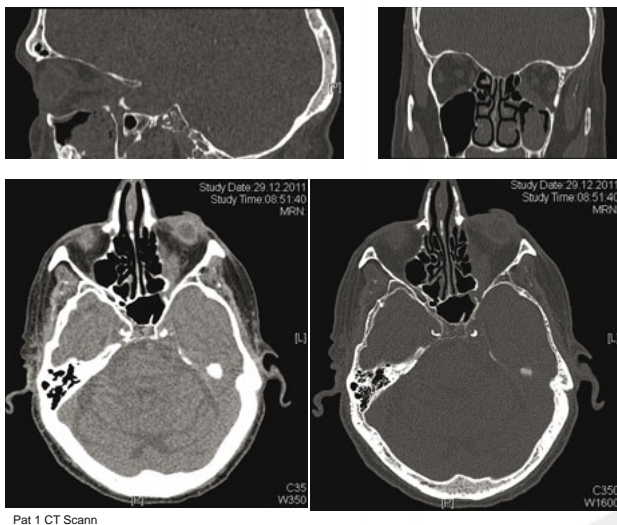
Goals:

The mycotic infection of paranasal sinuses requires thorough understanding of the underlying causes, possible surgical and anti-mycotic treatment options, and the willingness to work in an interdisciplinary setting with various clinics and sub-departments.

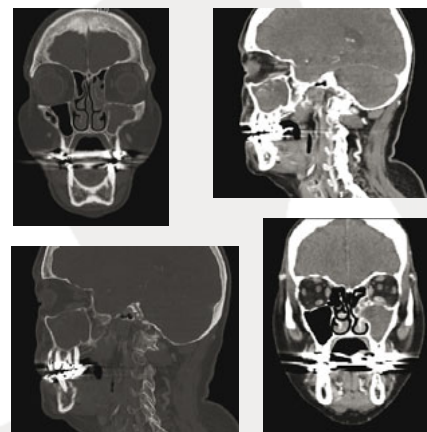
Results:

2 out of 3 patients suffered from a predisposing condition: ulcerative colitis and renal insufficiency; as well as collagenous colitis.

2 out of 3 patients received prior root canal treatment. In all cases surgical treatment (sanitization of the maxillary sinus and decortication) as well as systemic anti-mycotic therapy were applied. 2 out of 3 patients received additional local treatment via a drainage system.



Pat 1 CT Scann



Pat 3 CT Scann

Conclusion:

Root canal treatment and persistent symptoms require early 3D-imaging of the perinasal sinuses (especially in the case of diabetic or immunocompromised patients). The rapid confirmation of the diagnosis and the combined treatment (including surgical sanitation and systemic anti-mycotic therapy) are crucial for the outcome of the patient. Interdisciplinary treatment between Maxillofacial Surgeons and Infectious Disease Specialists leads to positive long-term results (follow-up duration of 18 months).

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