

***Alternaria alternata* infection causing rhinosinusitis in an immunocompetent patient**

zouhour hattab¹, maha abid¹, foued bellazreg¹, akila fathallah², wissem hachfi¹, Amel Letaief¹

¹infectious diseases department - chu Farhat Hached, Sousse, Tunisia.

²parasitology and mycology department - chu Farhat Hached, Sousse, Tunisia.

Introduction:

Alternaria alternata is a saprophytic dematiaceous mould, found mostly in soil and decomposing vegetation. Among *Alternaria* species, it is the most commonly isolated from human infections. It is a known agent of ocular infections and has been reported to cause both keratitis and endophthalmitis.

Alternaria alternata is one of the rarest fungi associated with rhinosinusitis.

Purpose:

to report a case of *Alternaria alternata* rhinosinusitis in a patient hospitalized in the infectious diseases department between April and June 2014.

Methods:

❖A 19 year old male presented to the ORL department due to head pain, post-nasal discharge and right exophthalmos since 8 months.

❖Computed tomography (CT) scans revealed : obliteration of the maxillary and frontal sinuses with destruction of the wall of the orbit and intraorbital extension (Figure 1-2).

❖The patient underwent a sinus biopsy, meatotomie and an oral antifungals were given for 21 days(voriconazole 200mg/day).

❖The biopsy showed later fungual elements on direct microscopic examination (Figure 4) and culture growth of *Alternaria Alternata*.

❖HIV and hepatitis B serology was negative

❖Electrophoresis of proteins and antinuclear antibodies, were negatives

❖Body scan objective multiple retroperitoneal lymphadenopathy and lymph node biopsy was non specific

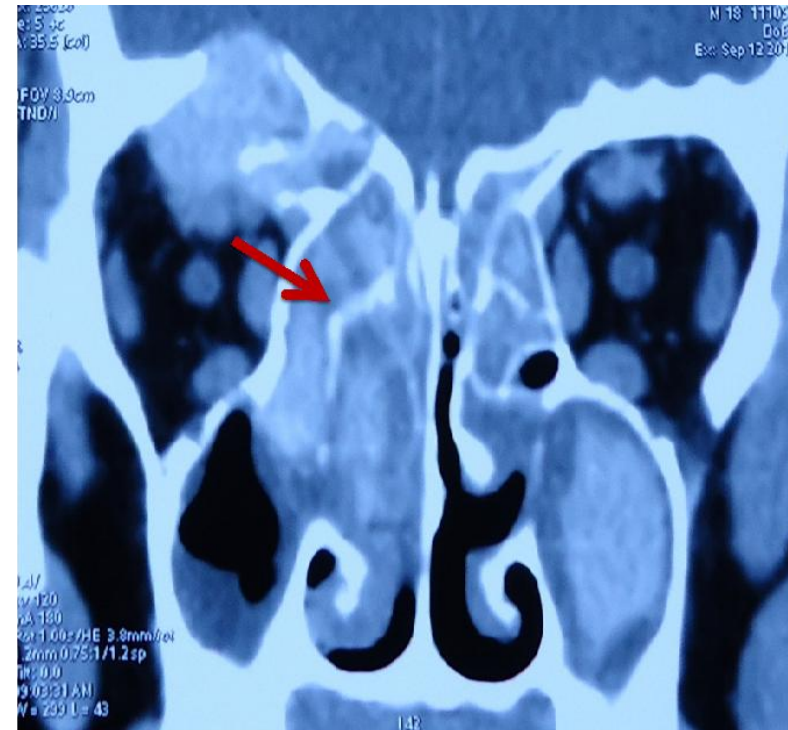


Figure 1: Preoperative axial computed tomography scan with obliteration of the maxillary sinuses

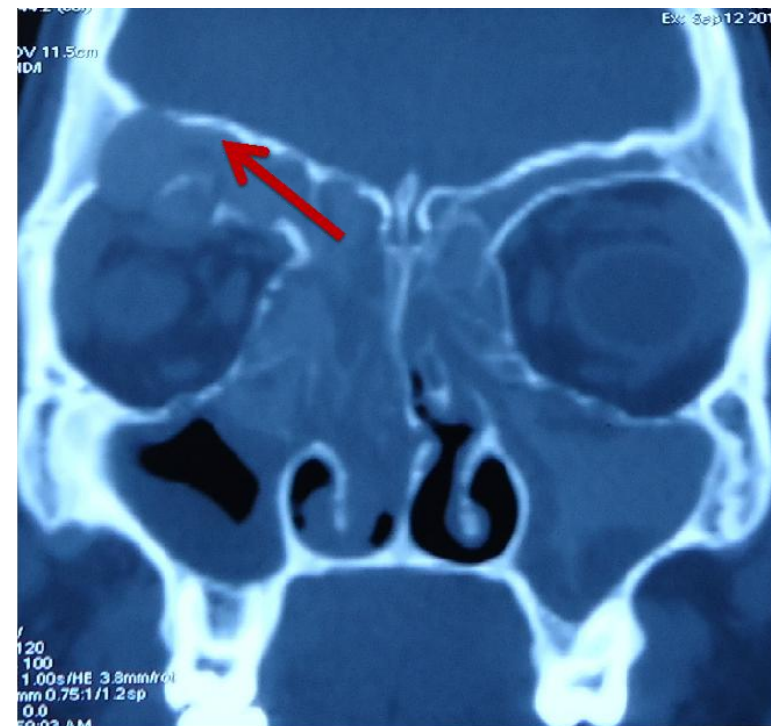


Figure 2: Preoperative axial computed tomography scan with intracranial and intra-orbital extension

Results:

❖The patient was treated initially with amphotericin B for 2 weeks and then referred to ORL department for surgical debridement and septoplasty.

❖The recovery was uneventful and patient was discharged with oral antifungals (Fluconazole x6 days and Itraconazole x2 months).

❖Patient is on regular follow-up without any further complaints.

Discussion:

❖*Alternaria* is an ubiquitous fungus regarded as non-pathogenic contaminants of clinical specimen unless isolated on repeated culture and correlated with clinical findings.

❖All the cases were associated with immunocompromised state of the patients such as corticosteroid therapy, leukemia and organ transplant

❖Diabetes also was revealed as a factor to such fungus infection. It is the first case reported in an immunocompetent patient

❖The treatment of alternariosis and appropriate antifungal dosages has not been standardized and these issues have not been specifically addressed in the literature.

❖Itraconazole is the treatment of choice as the renal toxicity and concerns about the necessity of extended hospitalization, makes amphotericin B the second choice of drug with surgical debridement resection to achieve clinical resolution without relapse.



Figure 4: fungal hyphae in microscopy

Conclusion:

❖Clinicians should consider and include this species as differential diagnosis in cases of chronic sinusitis that is non-responsive to usual management.

❖Only histopathological examination aided by microbiological identification can evoke earlier the diagnosis.



Service de Maladies Infectieuses

CHU Farhat Hached Sousse