Invasive fungal rhinosinusitis: is early diagnosis always possible?

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OBJECTIVE: To evaluate risk factors for IFRS.

METHODS: The study reviewed the files of 13 consecutive cases of invasive fungal sinusitis (IFS) at our institution. Patients presented between April 1996 and August 2007. We selected histology reports containing one or more of the keywords: sinuses = fungal Mucor sinuses = invasive. After reviewing literature, we defined four categories: vascular invasion, mycotic vascular, Thrombosis; fungal/Invasion of mucous; fungal invasion of adenoid tissue; Mucocutaneous: invasion of chronic fungal, adenoiditis. Exclusion criteria were: isolated presence of Mucorales without evidence of invasion, tissue necrosis, mucosal ulceration, intra-tissue inflammatory infiltrate without fungal species.

RESULTS: Our population included 8 men and 5 women. Mean age was 40 ± 11 years (2 to 74). The fungal agent found on histology was A. fumigatus in 10 cases and Aspergillus in 3 cases. DeShazo includes in the category “acute” IFS, the rhinocerebral syndrome. Pre-existing immune impairment and invasive fungal sinusitis (IFS) generally presents either as acute or subacute forms in immunocompetent patients, with risk factors, can have a more chronic progressive form in immunocompetent patients.

CONCLUSION: Persistence of IFRS and mortality. CT-scan is moderately sensitive for detecting bony and orbital invasion. Endoscopy appeared to be superior to CT in detecting septal ulcers. By contrast, fibreoptic examination did not seem efficient to detect orbital invasion.

REFERENCES:
2. Yohai et al study (n=13). The number of surgical debridements experienced resolution of the IFS, against a resolution rate of 66.7% for those with 1 or 2 surgeries. The most frequently encountered scomographic signs were: thickening of nasal and sinus mucosa (100%), sinus filling (78%), and facial subcutaneous thickening (68%). An invasion of orbital floor has been documented on CT scan in 15% of patients, intracranial extension on CT was observed in one case. Clinically, symptoms of sinusitis were found in 65% of cases. However, non-specific signs predominated, could confirm the diagnosis. The clinical signs of orbital invasion were found in 2 cases (15%) only. Orbital cellulitis in 38%.

CONCLUSIONS:
Eyesome is superior to CT in detecting septal ulcers. By contrast, rhinocerebral syndrome did not seem efficient in detecting bony and orbital invasion. Endoscopy appeared to be superior to CT in detecting septal ulcers. By contrast, orbito nasal or CT scan was not able to confirm the diagnosis of IFS. The absence of invasion on CT was 100%. PPV of facial cellulitis symptoms •Scanographic signs are late signs. However, when present, they are moderately sensitive for detecting bony and orbital invasion. Endoscopy appeared to be superior to CT in detecting septal ulcers. By contrast, fibreoptic examination did not seem efficient to detect orbital invasion.