most common isolates were yeast like fungi- 14 strains (99%). The dominant strains from Candida genus were C. glabrata 4 (28.5%), C. krusei 4 (28.5%), C. albicans 2 (14.3%), C. tropicalis 1 (7.2%), C. parapsilosis 1 (7.2%). Other fungal strains: Cryptococcus neoforms isolated in 2 cases (14.3%) and Aspergillus fumigatus. 1 strain- 6.7% out of the total number of cultures. The susceptibility of isolates for Amphotericin B and Voriconazole was 100%. In 13 strains which were tested for Itraconazole, 6 (46%) were resistant, the 16.7% of analyzed species were Fluconazole resistant. 100% of C. glabrata isolates were susceptible for Caspofungin and Posaconazole.

Conclusions: The performed analyses indicated that yeast like fungi had the highest contribution in fungemias (99%). The main etiological factors of fungemia in immunodeficient patients were non-albicans species 66.7%. The dominant species from Candida genus with increased resistance for antifungal agents were C. glabrata 33.3% and C.krusei 33.3%. The most efficient antifungal agents were in vitro Amphotericin B and Voriconazole.

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Invasive Zygomycoses in a Tertiary Haeamatooncological Centre in the Czech Republic

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Background: Infections by Zygomycetes (class Zygomycetes, most infections by fungi of the Mucorales order) are rare emerging mould infections found almost exclusively among immunocompromised patients (malignant diseases, after haematopoietic stem cell transplantation (HSCT) or solid organ transplantation, neutropenia, iron overload, diabetes mellitus, drug addiction ...). In the last decades the number of referred cases in English written literature increased. The outcome of treatment is slowly improving due to aggressive surgical treatment together with modern antymycotic treatment. In spite of that the mortality of pulmonary form remains over 80%.

Materials: We summarized the invasive infections by Zygomycetes in a 33 bed (21 standard beds, 8 intensive care beds, 4 transplant beds) tertiary haeamatooncological centre in Prague, Czech Republic.

Methods: A prospective monitoring of mould infections in the time period 1/2003-12/2007 was used and we choose only the proven cases (according to EORTC-MSG criteria).

Results: There were two clusters of infections by Zygomycetes in 60 months – 4 proven cases in 1-4/2003, all caused by Rhizomucor pusillus, which had been identified in hospital environment before the clinical cases appeared. 2 proven cases 12/2005-1/2006 were identified by histology without further specification by culture. Four of 6 patients were after HSCT and 2 after therapy for acute leukemias. Five of 6 patients developed pulmonary form, one of HSCT patients developed disseminated form. 4 patients died from the progression of mycosis, one died from the relapsing malignancy, one patient lives without any sign of fungal infection.

Conclusions: The aforementioned cases support the evidence of poor outcome of zygomycoses in haeamatooncology patients. The predominance of pulmonary form and high mortality in this patient group is in concordance with literature. The clustering of cases to two time periods and identification of Zygomycetes in hospital environment prior to the first period support the idea of higher vigilance and/or preventive measures (change in antimycotic policy or temporary closure of the unit) when these extremely dangerous fungi are found in the environment of immunocompromised patient.

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Immunocompromised Patients with Possible Sphenoid Sinus Aspergilloma the Role of Detection of Aspergillus Antigen Galactomannan

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Background: The invasive infections from Aspergillus are a major cause of morbidity and mortality in immunocompromised patients. The diagnosis is based on the histological tests and the growth of the fungus in a tissue culture, after a dangerous and therefore avoided in neutropenic patient’s biopsy. The combination of the detection of Aspergillus antigen Galactomannan (GM) in serum and X-ray findings is considered to be an indication equivalent to a positive biopsy sample.