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Abstract (poster session)

Mucormycosis in patients with haematological and oncological diseases in Saint Petersburg, Russia

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Background and Objectives. Mucormycosis is an increasingly common infection in immunocompromised patients. The aim of the study - to evaluate clinical characteristics and results of treatment of haematological and oncological patients with mucormycosis in St. Petersburg, Russia. **Methods.** The prospective study during the period 2005-2011. The diagnosis of mucormycosis was made according to EORTC/MSG criteria (2008). **Results.** We observed 16 patients with underlying haematological and oncological diseases who developed proven (56%) or probable (44%) mucormycosis. The mean age of patients was 25 years (range 10-54), male and female ratio 1,2:1. Underlying diseases included: acute myeloid leukemia (44%), acute lymphoblastic leukemia (25%), neuroblastoma (6%), Hodgkin's lymphoma (6%), aplastic anemia (6%), myelodysplastic syndrome (6%), and myeloid sarcoma (6%). In 50% of patients mucormycosis were diagnosed after or with invasive aspergillosis. Main clinical forms of mucormycosis were: pulmonary (82%), subcutaneous (6%), osteomyelitis (6%), and gastrointestinal (6%). Two and more organs were involved in 44% of patients. Diagnosis was established by histology and/or microscopy in all patients. In 56% of cases the diagnosis was confirmed by culture. Aetiologic agents included: *Lichtheimia corymbifera* (2), *Rhizopus microsporus* var. *oligosporus* (1), *Rhizopus* spp. (3), *Rhizomucor pusillus* (1), and *Rhizomucor* spp. (2). Antifungal therapy was performed in 13 patients (3 cases were diagnosed post-mortally). Posaconazole was used in 77% of patients, amphotericin B deoxycholate - 69%, caspofungin - 54%, amphotericin B lipid complex - 46%, and liposomal amphotericin B - 8%. Combination therapy was performed in 69% of patients (amphotericin B deoxycholate + caspofungin, posaconazole + amphotericin B deoxycholate). Twelve weeks overall survival was 38%. **Conclusions:** 1. Main underlying diseases were acute myeloid leukemia and acute lymphoblastic leukemia; 2. Mucormycosis were diagnosed after or with invasive pulmonary aspergillosis in 50% of patients; 3. Pneumonia was most common clinical manifestation (82%); two and more organs were involved in 44% of patients; 4. 12 weeks overall survival of haematological and oncological patients with mucormycosis was 38%.