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**ePoster Viewing**

**Fungal disease epidemiology & clinical trials**

**Invasive aspergillosis in patients with Hodgkin's lymphoma in Saint Petersburg, Russia**

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**Background:** Invasive aspergillosis (IA) often occurs in hematological patients with immunodeficiency after cytostatic therapy or HSCT. Publications on IA in patients with Hodgkin's lymphoma (HL) are limited.

**Material/methods:** We examined 37 adult patients with HL, the median age – 32 years, males – 49%. The control group included 32 adult patients with IA and acute lymphoblastic leukemia (ALL), median age – 39 years, males – 75%. For the diagnosis of IA were used criteria EORTS/MSG 2008.

**Results:** In all patients IA developed after cytostatic therapy: HL group – BEACOPP predominantly; ALL group – ALL-2009, Hyper-CVAD and others, the average number of courses – 2 vs 6 (p=0,0002).

Before IA prolonged neutropenia was in 59% vs 81% patients ( $p=0,01$ ), lymphocytopenia – 64% vs 62%, steroids were used in 70% vs 68% patients. At the time of IA diagnosis bacterial infections were detected in 19% vs 22% patients, viral infections – 11% vs 9%. The main sites of infection were lungs – 100% and 94% cases. Disseminated IA was identified in 2% vs 12% patients ( $p=0,0001$ ), with CNS involvement - 2% vs 6% ( $p=0,03$ ). In HL group 100% of patients had probable IA, in ALL group probable IA – 88%, proven – 12% ( $p=0,02$ ). Galactomannan test in serum or bronchoalveolar lavage fluid (BAL) was positive in 72% vs 75%. Direct microscopy of BAL was positive - 14% vs 28% cases. *Aspergillus* spp. were isolated in culture in 32% vs 34% cases. The main etiological agents were *A.fumigatus* - 58% vs 55%, *A.niger* – 34% vs 27%, *A.flavus* – 8% vs 18%. Mixed etiology agents (*Mucor*, and *Pneumocystis*) were found in 8% vs 18% cases. Patients in both groups received similar antifungal therapy: voriconazole – 55% vs 58%, caspofungin – 21% vs 18%, amphotericin B deoxycholate – 12% vs 9%, posaconazole – 8% vs 6%, and itraconazole – 4% vs 9%. The median duration of antifungal therapy in HL group was 61 days, in ALL – 94 days. Overall survival rate in 12-weeks was 89% vs 81%. Secondary antifungal prophylaxis was used in 24% vs 32% patients. In 1 year follow up period complete remission of IA occurred in 77% vs 44% patients ( $p=0,01$ ). Negative prognostic factors of 12th week survival were bacterial or viral infections ( $p=0,04$ ), and mixed etiology ( $p=0,04$ ). Positive prognostic factor of 1 year survival was secondary antifungal prophylaxis ( $p=0,02$ ).

**Conclusions:** The main risk factors of IA development in patients with HL were lymphocytopenia – 64% and corticosteroids use - 70%. The main etiological agents were *A.fumigatus* - 58% and *A.niger* – 34%. All patients with HL had IA with lung involvement – 100%, dissemination and CNS involvement were rare (2%). Twelve week overall survival was 89%. Positive prognostic factors of 1 year survival was secondary antifungal prophylaxis, negative prognostic factors of 12th week survival: bacterial or viral infections, and mixed IA etiology.