P1317
Poster Session V
Infections in transplant recipients

OUTCOME OF MUCORMYCOSIS IN HEMATOPOIETIC STEM CELL TRANSPLANT RECIPIENTS HAS IMPROVED: SINGLE CENTER EXPERIENCE

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Background

Mucormycosis (M) is life-threatening infection. In recent years M has become and an important cause of morbidity and mortality in allogeneic hematopoietic stem cell transplant (allo-HSCT) recipients. This study focuses on outcome changes of M in allo-HSCT recipients last two years.

Methods

During 5-years period 774 allo-HSCT were performed in our center (2009-2013). M was diagnosed in 18 pts after allo-HSCT. EORTC/MSG 2008 diagnostic criteria of proven and probable invasive fungal disease (IFD) were used. Since 2011 active diagnostic strategy and usage combination antifungals (lipid forms ampho B + caspofungin) as a first line therapy for M have introduced in routine practice. For incidence and outcome analysis we divided pts in two groups before and after 2011 (group 1: 2009-2011, 397 allo-HSCT; group 2: 2012-2013, 377 allo-HSCT). Efficacy of therapy was estimated by 12-weeks overall survival, post-mortally diagnosed cases were excluded.

Results

Incidence of M in group 1 was 3,0% (12/397), in group 2 – 1,6% (6/377). There were 8 proven and 10 probable cases of M in 18 pts with predominantly acute leukemia (61%) and lymphoma (22,2%). Median date of M onset after allo-HSCT was D+104 (14-494). Two cases of M were diagnosed post-mortally. Main clinical forms of M were pulmonary 83,5%, rhinocerebral 5,5%, subcutaneous/osteomyelitis 5,5%, and bowel 5,5%. In 83,5% pts bronchoscopy and 30% transbronchial/transthoracic biopsy were performed, in 100% cases it were informative for the diagnosis. In 69% of cases diagnosis was confirmed by culture. Etiologic agents of M were *Rhizopus* spp. (73%), *Rhizomucor* spp. (9%), *Mucor* spp. (9%), and *L. corymbifera* (9%). In 87,5% cases M was diagnosed after or with invasive aspergillosis (IA) in contradistinction to before 2012 – 50%. M was diagnosed and treated before allo-HSCT in three pts and in two cases with complete remission at the moment of transplantation (group 1) relapse of M was diagnosed after allo-HSCT. 12-week OS after diagnosis of M in group 1 was 45,5%, in group 2 – 83,3% (p<0,1). 6-months OS after diagnosis of M in group 1 was 36,4%, in group 2 – 66,7%, and 1-year OS in group 1 was 18,2%, in group 2 – 66,7%.

Conclusions

We observed that in last two years incidence of mucormycosis in allo-HSCT recipients was decreased (3,0% vs 1,6%). *Rhizopus* spp. (73%) still was the main etiological agents. Main clinical form of M was pulmonary (83,5%). The rate of M with or after aspergillosis has increased from 50% to 87,5%. Outcomes of M in allo-HSCT have improved in last 2 years. Active diagnostic strategy, early diagnosis and usage combination antifungals (lipid forms ampho B + caspo) as a first line therapy for M improved the prognosis after allo-HSCT.