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Paper Poster Session

Antifungal drug treatment

Invasive mycoses (IM) and prescription of antifungal drugs (AFD) in adult patients (pts) with newly diagnosed acute lymphoblastic leukaemia (ALL): RIFI study

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Background: The objective of this study was to estimate the rate of IM and prescription of AFD among pts with newly diagnosed ALL for 6 months of chemotherapy cycles (CC).

Material/methods: Multicenter prospective observational study RIFI (NCT01519648) was performed in 12 hematological centers between February 2012 and March 2014. Pts with ALL were included and followed up for 6 months.

Results: A total of 111 pts were enrolled (56 male, 55-female; median age 32 years (18-70)). Within 6 months, these patients received 372 CC (induction I - 111, induction II - 95, consolidation I - 81, consolidation II - 74, reinduction in resistant cases - 11). Granulocytopenia was in 47.3% of CC, more often in induction I than consolidation I-II (74.8% vs 23.5% vs 17.6%, p=0.0001). The median duration of granulocytopenia was 11 (2-78) day (15 days in induction I, 9 days in consolidation I-II). The prescription of antibiotics was in 52.4% of CC, persistent fever for more than 72 hours was observed in 12.1% of CC, recurrent episode of febrile fever was in 15.6% of CC. All of these points were significantly more frequent in induction I than consolidation I-II. AFD were not prescribed in 242 (65.1%) of CC (43% induction I, 70.5% - induction II, 75.3% - in consolidation I, 81% in consolidation II, p<0.0001). IM (proven, probable, possible) was diagnosed in 10 (9%) pts; 5 (4.5%) pts had invasive aspergillosis, 1 (0.9%) mucormycoses, 4 (3.6%) invasive candidiasis. The rate of IM was 3% (n=3) in induction I; 3.5% (n=3) in induction II; 1% (n=1) in consolidation I; 1% (n=1) in consolidation II; 18% (n=2) in reinduction in resistant cases.

The main indications for the using of AFD were prophylaxis (15.3%) and treatment of oropharyngeal candidiasis (11.8%). Antifungal prophylaxis prevailed in induction I and II (21.6% and 17.9% vs 12.3% -8.1% in consolidation I-II). Oropharyngeal candidiasis dominated in induction I (24,3% vs 6,2 and 5,4% in consolidation I-II). Fluconazole was the main drug for prophylaxis (89.5%) and treatment of

oropharyngeal candidiasis (97.7%). Fever-driven, diagnosis-driven and targeted treatment approaches were done in 11 (3%), in 12 (3.2%), in 10 (2.7%) of CC respectively.

Conclusions: IM were diagnosed in 9% of pts within 6 months of ALL treatment and were caused by moulds (5.4%) and yeasts (3.6%). The rate of IM at different CC of treatment for ALL (induction, consolidation) was low and ranged from 3.2-1.2% except of reinduction in resistant cases. The main indications for the prescription of AFG were the prophylaxis and treatment of oropharyngeal candidiasis. Other approaches to the appointment of antifungal drugs did not exceed 3%. AFD were not used in 65% of CC.