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Paper Poster Session

Antifungal drug treatment

Approaches for using of antifungal drugs (AFD) in adult patients (pts) with newly diagnosed acute myeloid leukaemia (AML) in real clinical practice in Russia: RIFI study

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Background: The objective of this study was to evaluate approaches for using of AFD in pts with newly diagnosed AML for 6 months of chemotherapy cycles (CC) in real clinical practice in hematological centers (HC) of Russia

Material/methods: Multicenter prospective observational study RIFI (NCT01519648) was performed between February 2012 and March 2014. All pts were followed up for 6 months.

Results: A total of 808 pts from 19 hematological centers were included in RIFI study of which 262 (32%) adult pts from 14 HC had newly diagnosed AML. Within 6 months, 262 pts received 782 CC (induction I - 262, induction II - 212, consolidation I - 148, consolidation II - 116, reinduction in resistant cases 44). Granulocytopenia was in 88% of CC with comparable frequency in induction I-II (91.2%-88.2%) and consolidation (84.5%). The median duration of granulocytopenia was 16 (1-94) days (19 and 14 days in induction I-II, 13 and 15 days in consolidation I – II, p<0.001). The prescription of antibiotics was in 90% of CC, persistent fever for more than 72 hours in 43.2%, and recurrent of febrile fever in 42.7%.

AFD were not prescribed in 278 (35.5%) of CC (24% in induction I, 35% in induction II, 48% in consolidation I, 44% in consolidation II, $p=0.001$).

The primary antifungal prophylaxis (AP) was in 29.5% (231) of CC (32-33% in induction I-II and 25.7% -24% in consolidation I-II). For prophylaxis fluconazole was used in 79.7% of CC, posaconazole in 14.7%. Secondary AP was in 2.3% (18) of CC (1.4% in induction II, 4.7% in consolidation I and 5.2% in consolidation II) and voriconazole was prescribed in 11 (61.1%) CC. Fever-driven, diagnosis-driven and targeted treatment approaches were done in 125 (16%), in 48 (6.1%), in 43 (5.5%) of CC respectively. Fever-driven treatment was with amphotericin B in 55.2% of CC, voriconazole in 13.6%, lipid complex (LC) amphotericin B in 13.6%, fluconazole in 10.4%, other AFD in 7.2%. For diagnosis-driven approaches amphotericin B was used in 60.4% of CC, voriconazole in 16.7%, LC amphotericin B in 12.5%, caspofungin in 4.2%, other AFD in 6.3%. Treatment of invasive aspergillosis (IA) was performed in 62.5% of cases by voriconazole, invasive candidiasis by caspofungin (4) and voriconazole (2).

IM (proven, probable, possible) was diagnosed in 43 (16.4%) pts. Molds were in 34 (13%) pts (IA in 32 pts, mucormycoses in 1, *Acremonium* spp in 1), yeasts in 7 (2.7%) pts, mixed IM in 2 (0.8%) pts (1 - IA and mucormycoses, 1 – IA and candidemia).

Conclusions: Pts with newly diagnosed acute AML received AFD in 64.5% of CC. Approaches for using of antifungal drugs were primary antifungal prophylaxis (29.5%), secondary antifungal prophylaxis (2.3%), fever-driven (16%), diagnosis-driven (6.1%) and targeted treatment (5.5%).