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P1433

Cumulative incidence (CI) of invasive fungal infections (IFI) in haematopoietic stem cell transplant (HSCT) recipients and adult patients with acute leukaemia: RIFI study

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Background: The objective of this study was to evaluate CI (6 months) of IFI in HSCT recipients and adult patients with newly diagnosed acute myeloid leukemia (AML) and acute lymphoid leukemia (ALL) in Russia.

Material/methods: Multicenter prospective observational study RIFI (NCT01519648) was performed between February 2012 and March 2014. All patients were followed up for 6 months. IFI were classified as proven, probable or possible (EORTC/MSG).

Results: A total of 613 patients including 306 HSCT recipients and 307 adult patients with de novo acute leukemia were enrolled. Cohort of HSCT recipients contained 138 allogeneic HSCT recipients from 6 centers and 168 autologous HSCT recipients from 9 centers. Median age of allogeneic and autologous HSCT recipients was 29 (1-59) and 45 (2-66) years respectively. Among allogeneic HSCT recipients the main underlying disease was acute leukemia (74%) and prevailed non-myeloablative conditioning regimens (62.3%).

Among 307 patients with acute leukemia were 262 patients with newly diagnosed AML from 14 centers and 111 patients with ALL from 12 centers. Median age of adult patients with AML and ALL was 53 (18-79) and 32 (18-70) years respectively. Within 6 months, patients with AML and ALL received accordingly 782 and 372 chemotherapy cycles. Neutropenia with median duration of 16 (1-94) days occurred in 88% of chemotherapy cycles in AML patients. In ALL neutropenia was in 47% of chemotherapy cycle and it lasted for 11 (2-78) days.

During study period a total of 80 episodes of IFI were diagnosed, 51 of which (64%) were proven and probable. In cases of proven and probable IFI invasive aspergillosis (IA) was the most common IFI (n=39, including two mixed infections, 73.5%), followed by IFI caused by yeasts (n=9; 17%) and IFI caused by non-Aspergillus molds (n=5; 9.5%). The 6-month CI of IFI and IA (proven, probable or possible) is presented in Figure.

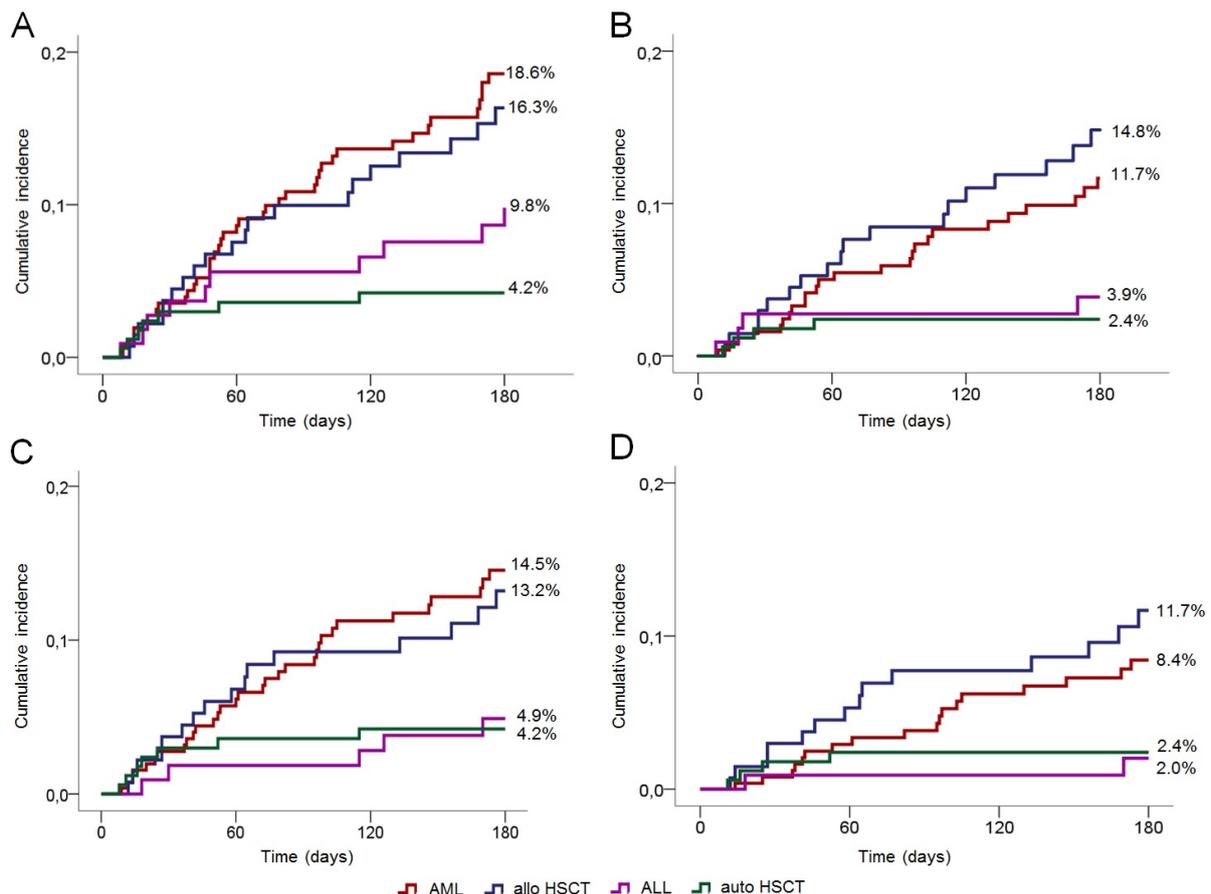


Figure. CI of IFI and IA in patients with acute leukemia and HSCT recipients. (A) CI of IFI proven, probable or possible. (B) CI of IFI proven or probable. (C) CI of IA proven, probable or possible. (D) CI of IA proven or probable.

Conclusions: IFI prevailed in adult patients with AML and in allogeneic HSCT mainly due to IA. CI of all categories IFI in ALL patients was less 10%, in recipients of autologous HSCT – 4.2%. We observed a large difference (7%) in the CI of all categories IFI (18,6%) and cases of proven and probable IFI (11,7%) in patients with AML which may be caused by limited mycological support in

various hospitals. Exclusion of possible IFI may lead to underestimation of real IFI incidence in patients.