Late intensification with autologous HSCT after non-myeloablative CEAM conditioning can't improve results of therapy in adults with T-cell acute lymphoblastic leukemia treated by non-intensive protocol: data of the multicentral prospective randomized RALL study.

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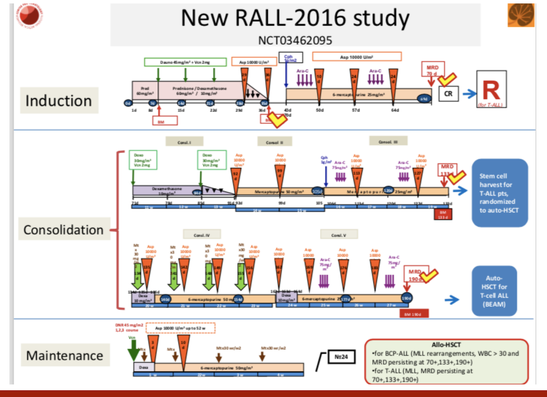
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Background

The Russian group working with ALL applies the protocol based on a less intensive and also non-interruptive approach. RALL-2009 study showed that fulfilled auto-HSCT in T-cell ALL could reliably improve DFS. But it's not randomized trial and we can't excluded selection in groups auto-HSCT vs chemotherapy only.

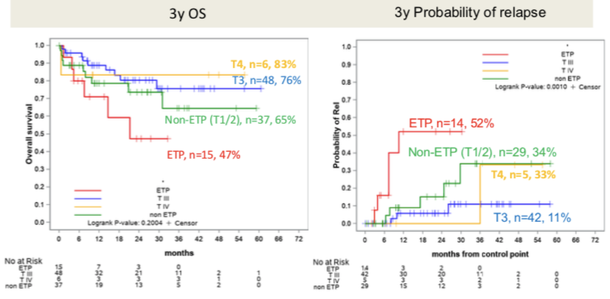
Objective

To appreciate the role of fulfilled auto-HSCT in T-ALL adult patients treated by RALL-2006 protocol.



Patients & Methods

267 Ph-negative ALL adult patients were included from Dec 2016 till Apr 2022. Among them 111 patients were with T-ALL. In T-ALL patients:74% were male, and median age was 31. In RALL-2016 protocol all T-ALL patients after achievement CR were brought to randomization after the informed consent: auto-HSCT vs ChT only.

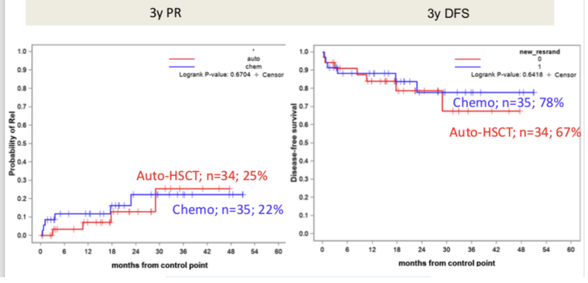


Results

5y OS and DFS in T-ALL patients were 68% and 66%, respectively. But we detected that ETP-ALL is reliably poor prognosis group of patients with highly PR (52% in 1[st]year after CR). At this moment 87 T-ALL were randomized: 43 pts to ChT, and 44 to auto-HSCT. In both arm we have refuse (1 and 4 cases – that patients were censored on data of refuse), the similar deaths in CR in both arms, and the similar cases of patients who went to allo-HSCT – MLL leukemia, Niimegem syndrome or long MRD persistence). In HSCT arm 25 auto-HSCT were done. For transplanted patients: time from CR to transplant was 7 months. All pts before auto-HSCT were conditioned by CEAM. Maintenance start after HSCT was 1,5 month. Transplant-related mortality was 5%. By land mark analysis from median of performance HSCT (7 mth), we didn't detect differences in DFS and RP (67%vs78% and 25%vs22% auto-HSCTvs ChT). Auto-HSCT does not improve DFS in T-ALL with MRD after induction. Group of patients with MRD persistence after induction in both auto and only ChT groups have poor DFS (MRD-: 86% vs 81% and MRD+: 67% and 40%, respectively ChT vs auto-HSCT).

Summary

We didn't detect that auto-HCST could improve long-term result for T-cell ALL. ETP-phenotype is an independent poor prognostic factor. Addition of auto-HSCT as late high-dose consolidation for T-ALL with MRD persistence does not improve results of therapy.



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