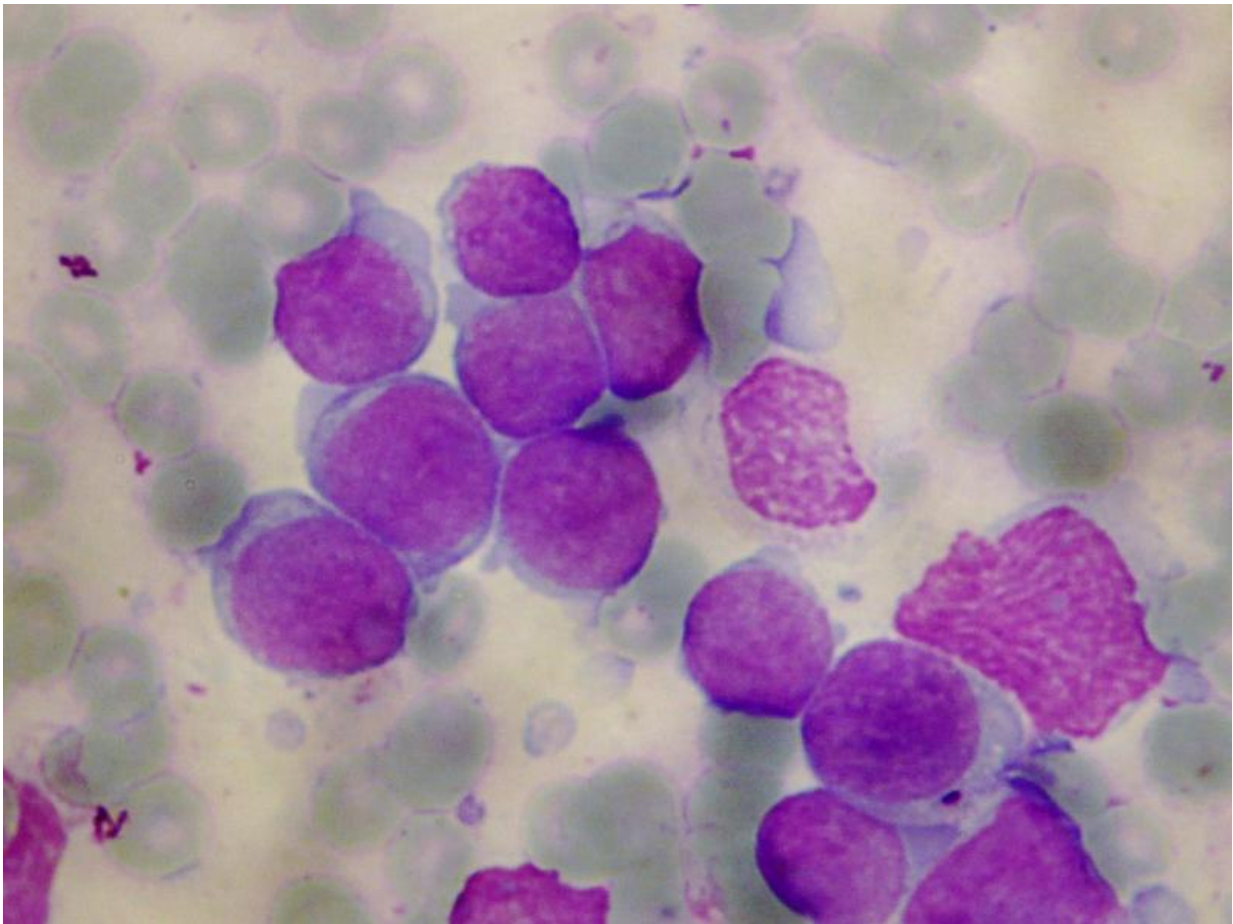


Minimal residual disease alone not predictive in T-cell leukemia

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T-cell acute lymphoblastic leukemia. Credit: The Saban Research Institute of Children's Hospital Los Angeles

Acute lymphoblastic leukemia (ALL) is the most common pediatric cancer. This disease includes two subtypes, B-cell and T-cell leukemia, depending upon the type of white blood cell where the leukemia originates. For B-cell ALL, the presence of a small number of remaining leukemia cells, called minimal residual disease (MRD), predicts risk of relapse and is therefore used to guide treatment decisions. A team of investigators at Children's Hospital Los Angeles, led by Hisham Abdel-Azim, MD, conducted a historical cohort analysis and found that MRD alone, at the end of induction therapy, was not predictive of risk or outcome in children with T-ALL.

Results of the study will be published online in the journal *Pediatric Blood & Cancer* on May 14, 2015.

"Until now, the dogma has been that for patients with leukemia who have minimal [residual disease](#) at the end of induction, we need to intensify their treatment which also increases side effects," said Abdel-Azim, who is also an assistant professor of Pediatrics at the Keck School of Medicine of the University of Southern California. "We have found for T-ALL, patients have excellent outcomes without therapy intensification and its associated toxicities."

Following induction therapy, minimal residual disease was determined by flow cytometry for 33 children with newly diagnosed T-ALL and 19 were found to have MRD. At a median of four years follow up, there were no relapses among the patients with MRD and 32 of 33 patients remained in complete remission.

The investigators concluded that clearance of leukemia cells from the blood is slower in patients with T-ALL compared to patients with B-ALL; however, [leukemia cells](#) ultimately are cleared without changes in therapy.

Provided by Children's Hospital Los Angeles

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