



Acute lymphoblastic leukemia in children

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Background

Acute lymphoblastic leukemia (ALL) is the most common childhood cancer, which is a type of leukemia that affects lymphoid cells and lymphocytes. Despite advances in the treatment of children with ALL, about %20 of patients with a recurrence of the disease. The last decade has seen remarkable advances in the genetic field of Leukomogenesis and response to treatment. The ultimate goal is to evaluate all aspects of acute lymphoblastic leukemia in children.

Materials and Methods

this study is a review, a scientific activity on a subject with a review of its various aspects, which is provided with the tools of annals.org, RubMed-Sid.ir, acm.org, jamanetwork.com and then processed and analyzed.

Results

Contemporary risk-based therapy has increased the rate of treatment for acute childhood lymphoblastic leukemia by nearly %80. Molecular genetic analysis of leukemic cells, pharmacodynamics studies of anti-leukemic agents, and pharmacogenetics studies of drug metabolizing enzymes provide a rational basis for further improving the effectiveness of treatment and reducing complications. Recent advances in high-performance biotechnology, including gene expression profiles, proteomics, and gene silencing, promise to identify molecular targets for specific therapies.



Conclusion

the 5-year survival rate in patients with ALL under the age of 14 is %91. Factors influencing the development of this disease can be highly related to environmental factors and awareness and education in this field is an important step in prevention.

References

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