# *Results of Cladribine in Hairy Cell Leukemia: Nasser Institute Experience.*

*Thesis*

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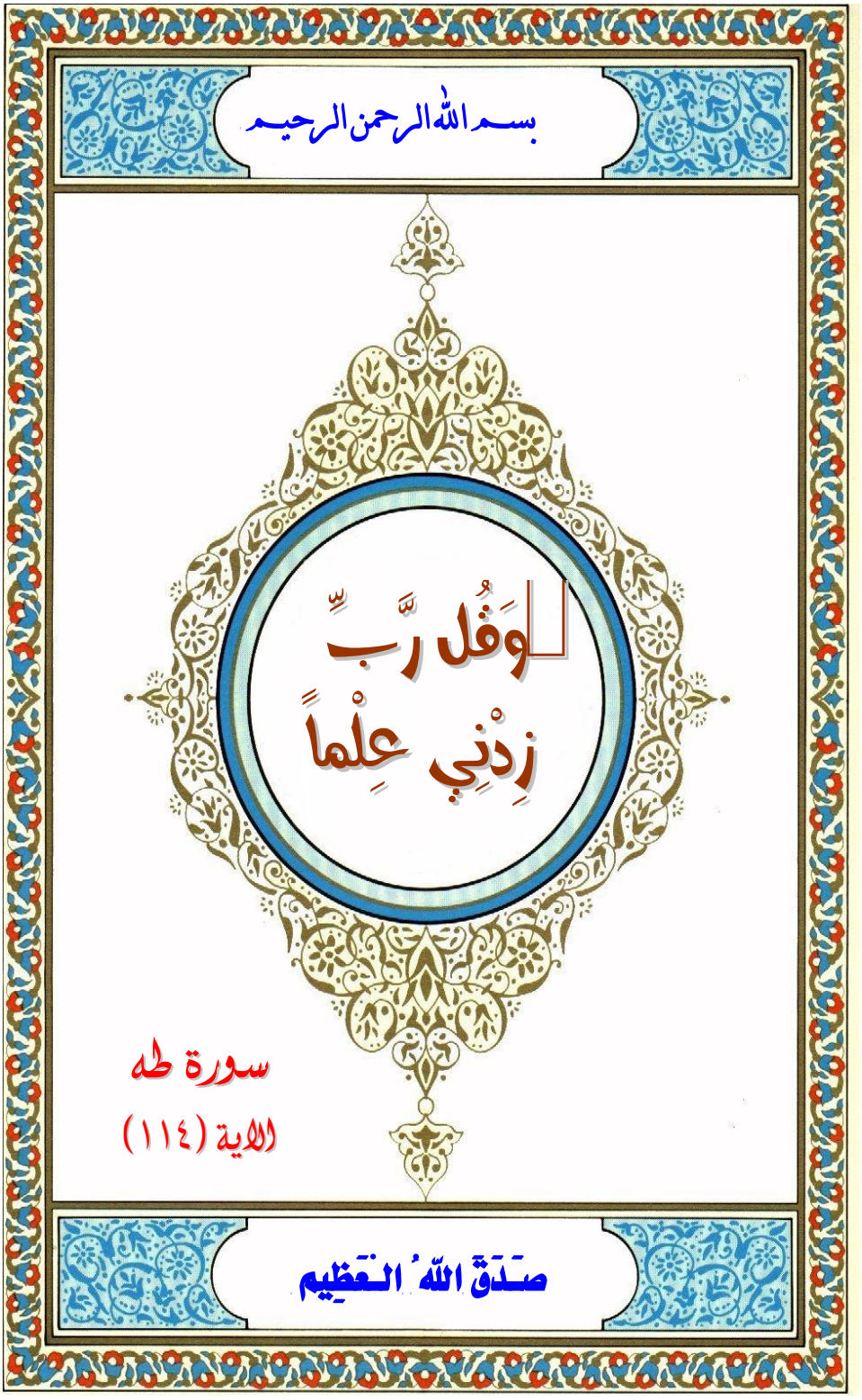
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# List of Abbreviations

| | |
|---|---|
| **2-cdA** | 2-Chlorodeoxyadenosine |
| **ADA** | Adenosine deaminase |
| **BM** | Bone marrow |
| **BMA** | Bone marrow aspiration |
| **BMB** | Bone marrow biopsy |
| **B-PLL** | B-prolymphocytic leukemia |
| **CD** | Cluster of differentiation |
| **CLL** | Chronic lymphocytic leukemia |
| **CNS** | Central nervous system |
| **CR** | Complete remission |
| **dADP** | Deoxyadenosine Diphosphate |
| **dAMP** | Deoxyadenosine Monophosphate |
| **dATP** | Deoxyadenosine Triphosphate |
| **dCF** | 2-Deoxycoformycin |
| **DCs** | Dendritic cells |
| **EBV** | Ebstein Bar virus |
| **F-ara-A** | Fludarabine |
| **FC** | Flow cytometry |
| **H&E** | Haematoxylin and eosin |
| **HC** | Hairy cell |
| **HCL** | Hairy cell leukemia |
| **IFN-α** | Interferon alpha |
| **LGL** | Large granular lymphocytic |
| **NR** | NO response |
| **PCR** | Polymerase chain reaction |
| **PLL** | prolymphocytic leukemia |
| **PR** | partial remission |
| **RES** | Reticuloenothelial system |
| **RLC** | Ribosomal-lamella complex |
| **SEM** | Scanning electron microscopy |
| **SI** | Splenic irradiation |
| **SIg** | Surface immunoglobulin |
| **SLVL** | splenic lymphoma with villous lymphocytes |
| **TEM** | Transmission electron microscopy |
| **TPA** | Tetradecanoyl-phorpol-13-acatate |
| **TRAP** | Tartrate-resistant acid phosphatase |
| **WBC** | White blood cells |

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# ABSTRACT


***Purpose***

The aim of this study *is* ***to evaluate the Results of Cladribine in Patients With Hairy Cell Leukemia, Nasser Institute Experience***.

***Patients & Methods***

Thirty three patients with hairy cell leukemia received a single dose of cladribine at a dose of 0.09 mg / kg /day for seven days by continuous I.V. route.

***Results***

Follow up at three years revealed CR in 96.6% of patients. Cladribine therapy was tolerable with mild to moderate side effects, mainly in the form of neutropenic fever grade II , GIT toxicity and HZV skin infection .

***Conclusion***

Cladribine was found to be a well-tolerated therapy with acceptable side effects .The disease free and overall survival was as high as 96.6% .However more cases and longer follow up are needed to reach a firm conclusions.



***Key words***

Hairy cell leukemia , Lietak therapy

# INTRODUCTION

Hairy cell leukaemia (HCL) is an uncommon B-cell lymphoproliferative disorder affecting adults. HCL was first reported as a distinct disease in 1958. The prevalence has been estimated at 2% of all forms of leukaemia and, of patients affected by lymphoproliferative diseases which comprise mature B or T cells, HCL accounts for 8% of cases. HCL is 6–10 times more rare than chronic lymphocytic leukaemia (CLL) Interest in HCL has evolved in parallel with the development of useful therapeutic agents: interferon alpha and pentostatin in the 1980s and cladribine in the 1990s**.** ***(Grever. 2010)*** HCL affects middle-aged men more commonly than women; the male: female ratio being 4.5:1 with a median age at onset of 50 years ***(Harris et al., 2008)***.

Patients may be asymptomatic and the disease is identified because a full blood count is taken for an unrelated reason. Other patients present with symptoms of cytopenia, particularly infections. The most common laboratory finding is cytopenia, usually affecting two or three lineages; monocytopenia is a consistent feature. Leucocyte counts tend to be low (usually less than $5 \times 10^9$/l and very rarely over $10 \times 10^9$/l), except in the HCL- variant where the count is typically higher and monocytopenia is not a feature, Hairy cells are often seen in peripheral blood films but their proportion is variable. Splenomegaly is a common finding. Demonstration of TRAP by cytochemistry has been shown to be a useful test for HCL in the past but the availability of monoclonal antibodies reactive with TRAP, which can be used successfully in bone marrow trephine sections, has largely obviated the need for the cytochemical test. The HCL panel