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THE OUTCOME OF HAIRY CELL LEUKEMIA TREATED WITH CLADRIBINE, 15- year single center retrospective study

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INTRODUCTION

Hairy cell leukemia (HCL) is a rare indolent B-cell lymphoproliferative disorder that typically responds well to purine analogs. However, relapse is common.

AIM

To evaluate the outcome of patients with HCL treated with cladribine at our center.

METHOD

We retrospectively reviewed the medical records of adult patients (>18 years) diagnosed with hairy cell leukemia and treated with cladribine from 2006 until 2022. Responses were defined according to the standard criteria. Survival outcomes were plotted using Kaplan Meier method and compared using log rank test.

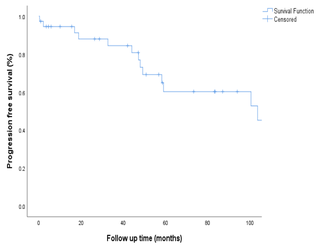
RESULTS

Thirty-seven patients were included, with a median age of 42 (range: 29-76) years. The majority (83%) were male. 35 (94.6%) patients had classical HCL and two (5.4%) had the variant type. The most common presenting symptoms were bone marrow failure (23 patients, 62.1%), fatigue (14 patients, 37.8%), and weight loss (7 patients, 18.9%). Additionally, 14 (37.8%) patients had massive splenomegaly.

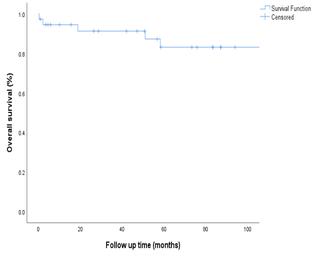
Following the first dose of cladribine, 21 (56.8%) patients achieved a complete response, 14 (37.8%) had a partial response, and 2 (5.4%) died before response evaluation. Neutropenic fever complicated the treatment in 24 (64.8%) patients.

After a median follow-up of 74 months, median progression free survival (PFS) was 103 months (95% CI:43-164) with a 5-year PFS of 61%. The median overall survival (OS) was not reached; 5-year OS rate was 83.1%.

Ten patients (27%) relapsed after a median of 48.6 (range: 17-119) months, all requiring treatment. Treatments for relapse included cladribine (6 patients), cladribine with rituximab (2 patients) , rituximab (1 patient) , and pentostatin and rituximab (1 patient) . All patients responded to treatment. One patient experienced a second relapse, was treated with rituximab, and subsequently died from sepsis.



The median PFS was 103 months (95% CI:43-164).
5-year PFS was 60.3%.



Median OS was not reached.
5-year OS was 83.1%

Variable	5-year OS	P value	5-year PFS	P value
Age ≤40	100%	0.007	60%	0.573
Age >40	71.9%		61.1%	
Male	84.6%	0.75	61.3%	0.8
Female	75%		53.3%	
BMI ≤30	80.5%	0.4	48.3%	0.335
BMI>30	85.1%		70.0%	
Current smoker			39%	0.086
Never smoked/ex-smoker			69.4%	
Comorbidities	80.8%	0.42	65.1%	0.94
No comorbidities	84.6%		56.8%	
HB≤10	93.8%	0.21	60.2%	0.86
Hb>10	73.3%		60.9%	
WBC≤10	83.3%	0.68	67.4%	0.15
WBC>10	83.2%		34.4%	
ANC≤1000	76.1%	0.275	61.4%	0.34
ANC>1000	87.5%		64.8%	
Platelets ≤50			77.1%	0.26
Platelets >50			40.3%	
ALC ≤1500	70.7%	0.23	59%	0.96
ALC >1500	87.8%		64.9%	
Hairy cells in BM				
≤80%	71.4%	0.92	58.3%	0.3
<80%	85%		48.9%	
Hairy cells in PB				
≤20%	76.6%	0.15	71%	0.8
>20%	90%		54%	
Huge splenomegaly				
No	78.3%	0.28	58.7%	0.96
Yes	90%		59.7%	

CONCLUSIONS

Our study supports the long-term efficacy and safety of cladribine as a front-line treatment of hairy cell leukemia. Although relapses are not uncommon, they can be effectively managed with cladribine, rituximab, or pentostatin.

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