Retrospective analysis of patient characteristics and treatment outcome of patients with chronic lymphocytic leukemia treated at Princess Noorah Oncology Center King Abdulaziz Medical City – Jeddah – Saudi Arabia from 2000-2016

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Background

- CLL is the most common leukemia in adults in western countries and accounts for about one-third of new cases of leukemia each year [1]
- Chemo- immunotherapy has improved the outcome of younger patients by inducing long term and likely durable remissions with a median progression free survival (PFS) of up to 80 months in subgroups of patients [2]
- No previous publications-studies were published regarding CLL in Saudi Arabia
- In Saudi Arabia , comorbidities (specifically DM, obesity and cardiovascular disease) are higher than that reported in western countries [3]

Objectives

- To determine overall survival of CLL patients based on their primary treatment modality.
- Secondary objectives were determining disease and patients characteristics

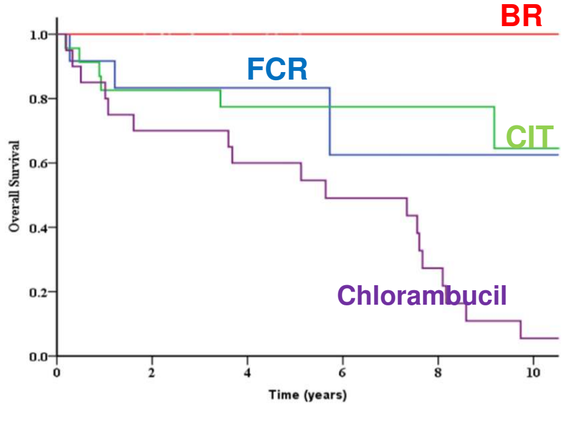
Materials & Methods

- This is a singles center, retrospective study .
- Data was collected from the flow-cytometry and pathology data base of CLL patients diagnosed between 2000 and 2016. Chemotherapy software and medical records were reviewed for clinical data, and follow-up calls were made for all missing information .
- A total of 98 patients were identified but 6 were excluded for having incomplete medical information or doubtful diagnosis.
- Patients were broken down into either an observation group or intervention group. Patients who received chemotherapy were grouped into 4 groups: FCR , BR, other chemo-immunotherapy (CIT) and single agent Chlorambucil group.

Table1. Characteristics of patients

	(n=92)
Age (years)	
≤50	16 (17.4%)
51-60	20 (21.7%)
61-70	32 (34.8%)
>70	24(26.1%)
Gender	
Female	29 (31.5%)
Male	63 (68.5%)
Comorbidities	
None	34(37%)
One	41(44.6%)
Multiple	17(18.5%)

Rai	
0	28 (30.4%)
1	26 (28.3%)
2	11 (12%)
3	9 (9.8%)
4	14 (15.2%)
Cytogenetic abnormalities	
Normal	8 (8.7%)
13q	12(13%)
11q	4 (4.3%)
Tri12	8 (8.7%)
17p-	5 (5.4%)
NA	51(55.4%)

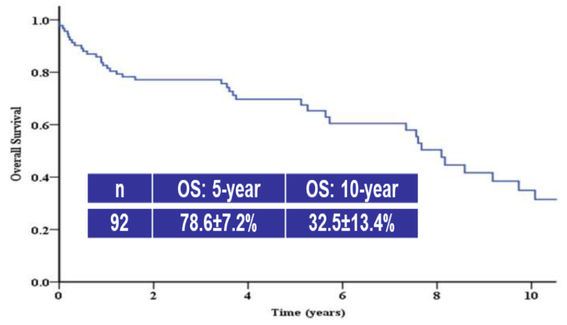


Results

- A total of 92 patients were included in this analysis , 40% of them were less than 61 years old. Median age at the time of diagnosis was 67 years.
- More than 63% had at least one major comorbidity .
- Cytogenetic study was missing in 50% of patients on presentation. Deletion 17p was detected in more than 10% of patients who have cytogenetic study done at diagnosis.
- Half of the patients needed therapy upfront and 50% of patients in the observation ended –up not receiving any therapy whatsoever.
- OS for the whole group of patients was 78.6±7.2% at 5 years . This was affected by patients age group with patients > 70 years old having 5 years OS of only 30.0±12.5% (p< 0.001).
- Patients on initial observation had an *identical OS* compared to treated group indicating the impact of comorbidities in driving the survival of this patient population (70.3±7.1% versus 68.9±8.6%. p value 0.5333).
- Even though FCR patients tended to be younger (36.4 % versus 50% patients > 60) and with less comorbidities (45% versus 60%) compared to the BR patients; but the *5 years OS favored BR* significantly (100% versus 83.3±10.8%, p=0.002).
- Patients received single agent *chlorambucil had the worse survival* OS (only 60.0±11.0 %. p=0.002).

Summary

- For our knowledge this represents the *FIRST CLL data from Saudi Arabia* .
- OS of CLL patients in our study is less than what is mentioned internationally despite younger age at the time of diagnosis and comparable frequency of comorbidities.
- Finally, less intensive regimen; BR, seems to induce better 5 years OS than FCR in our patient population.



References

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[2] Barbara Eichhorst etal on behalf of an international group of investigators and the German CLL Study Group (GCLLSG), First-line chemo immunotherapy with bendamustine and rituximab versus fludarabine, cyclophosphamide, and rituximab in patients with advanced chronic lymphocytic leukaemia (CLL10). Lancet Oncol 2016; 17: 928–42
[3] World Health Statistics 2015 book ISBN 978 92 4 156488 5