Clinical characteristics of chronic lymphocytic leukemia in young versus old age patients in Kurdistan region- Iraq

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Background

Chronic lymphocytic leukemia is a common adulthood leukemic type, although the incidence rate in the Kurdistan region is low. It is well known that chronic lymphocytic leukemia is prevalent among older adults; however, frequent cases of chronic lymphocytic leukemia are newly diagnosed at a younger age.

Objective

To analyze the difference in disease presentation, progression, and outcomes between younger and older patients with chronic lymphocytic leukemia in the Kurdistan region of Iraq

Patient and Methods

A retrospective cross-sectional review study was carried out in three oncology centers in the Kurdistan region (Nanakaly Hospital in Erbil, Hiwa Center in Sulaymaniyah, and Azadi Center in Duhok) for 10 years, from the 1st of January, 2010, to the 31st of December, 2019, on a convenient sample of 152 patients with chronic lymphocytic leukemia. Diagnosis of chronic lymphocytic leukemia was done by oncologists in Kurdistan tumor centers according to the (IWCLL). The age of patients at diagnosis was categorized into two groups and ranged from 25 to 94 years. The age cutoff value in the current study (55 years) depended on previous literature.

Results

The mean age of patients at diagnosis was 63 years; 28% were diagnosed at ≤50 years of age, and 72% were diagnosed at an age of more than 55 years. Older patients significantly presented with weight loss, whereas younger patients significantly presented with neck lumps. There was a highly significant association between the advanced ECOG performance scale and older age at diagnosis. A significant association was observed between the death outcome of chronic lymphocytic leukemia and older age at diagnosis. The mean survival duration of younger patients at diagnosis was significantly longer than that of patients who were older at diagnosis.

Table 1: Distribution of CLL presenting According to the patient age at diagnosis

Variable	Age at diagnosis				P
	≤55 years		>55 years		
	No.	%	No.	%	
Incidental diagnosis					0.2 NS
Yes	20	28.6	66	36.7	
No	50	71.4	114	63.3	
Fever					0.8 NS
Yes	20	28.6	53	29.4	
No	50	71.4	127	70.6	
Sweating					0.6 NS
Yes	18	25.7	41	22.8	
No	52	74.3	139	77.2	
Weight loss					**0.03** S
Yes	9	12.9	45	25.1	
No	61	87.1	134	74.9	
Fatigue					0.1 NS
Yes	28	40.0	89	49.4	
No	42	60.0	91	50.6	
Bleeding					0.1 NS
Yes	0	-	5	2.8	
No	70	100.0	175	97.2	
Neck lump					**0.002** S
Yes	26	37.1	33	18.3	
No	44	62.9	147	81.7	
Abdominal fullness					0.1 NS
Yes	5	7.1	25	13.9	
No	65	92.9	155	86.1	

S=Significant, NS=Not significant.

There was a significant association between weight loss as a presenting symptom of CLL and older age patients at time diagnosis (p=0.03), While a significant association was observed between neck lump presenting symptom of CLL and younger age patients at time of diagnosis (p=0.002). (Table 1).

Table 2: Distribution of CLL patients' treatment and outcomes according to chemotherapy treatment type

chemotherapy treatment type.

Variable	Age at diagnosis				P
	≤55 years		>55 years		
	No.	%	No.	%	
Treatment					0.1 NS
Watch and wait	24	34.3	63	35.0	
Chemotherapy	45	64.3	114	63.3	
Refused treatment	1	1.4	3	1.7	
ECOG performance status					**<0.001** S
Grade 0	51	72.9	65	36.1	
Grade 1	18	25.7	72	40.0	
Grade 2	0	-	25	13.9	
Grade 3	1	1.4	17	9.4	
Grade 4	0	-	1	0.6	
Status					**0.01** S
Death	9	12.9	49	27.2	
Alive	61	87.1	131	72.8	
Survival					**0.04** S
Mean±SD (months)	39.9±27.9		33.1±21.8		

S=Significant, NS=Not significant.

There was a highly significant association between advanced ECOG performance scale and older age CLL patients at diagnosis (p<0.001). A significant association was observed between the death outcome of CLL and older age patients at diagnosis (p=0.01). The mean survival duration of younger age CLL patients at diagnosis was significantly longer than the mean survival duration of older age CLL patients at diagnosis (p=0.04). (Table 2)

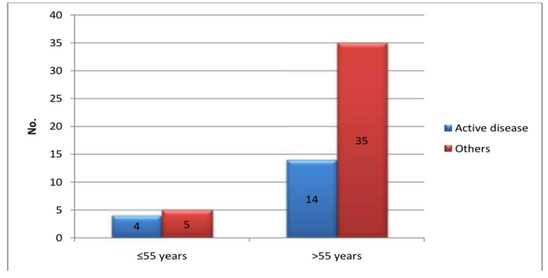


Figure 1: Distribution of the death causes according to age group of CLL patient (p=0.3)

As shown in figure 1; 35 older age CLL patients died due to other causes, while 14 older age CLL patients were died due to active disease and 4 younger age CLL patients died due to active disease, while 5 younger age CLL patients were died due to other causes although no significant difference (p=0.3). (Figure 1).

Summary

Clinical presentation, physical status, death rates, and survival of patients with chronic lymphocytic leukemia in the Kurdistan region of Iraq are different between younger and older patients.

References

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