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Diffuse large B-cell lymphoma in patients with chronic lymphocytic leukemia: A single center experience

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Dear Editor,

Chronic lymphocytic leukemia (CLL) is the most frequent form of leukemia in adults in the west; however, it is relatively infrequent in India.[1,2] Patients with CLL can have wide variations in their clinical course, from a majority having an indolent course, to others succumbing to their leukemia despite therapy.[3] During the course of the disease, 10% of patients, develop a secondary, aggressive lymphoma, known as Richter's syndrome (RS). There is paucity of data on RS from India, thus it seemed reasonable to undertake this study so as to know the incidence of RS in Indian patients, its clinical characteristics, and outcome. The study population was 320 previously untreated patients with CLL presenting for initial evaluation at our hospital between January 2000 and December 2012. Patients with CLL on follow up, any clinical suspicious of progression, underwent biopsy of the lesion, in case of a rapid lymph node enlargement or the appearance of any suspicious extranodal lesions. The characteristics of 17 patients with RS are summarized in Table 1. Fourteen patients had previously received treatment for CLL at baseline, while three patients were initially kept under observation. The number of lines of treatment was one in six cases, two in five cases, and three in three cases. At a median follow-up of 39 months (range, 12-60 months) from CLL diagnosis, all patients transformed to diffuse large B cell lymphoma (DLBCL; 13 on lymph node biopsy and four on extranodal site biopsy). Median time to RS transformation was 27 months from CLL diagnosis. RS was documented in nine cases at the first instance of progression (in three cases after observation and six cases at recurrence after first line treatment). Thirteen patients received acyclophosphamide, hydroxy doxorubicin, vincristine, and prednisone (CHOP)-based regimen, one patient received bendamustine-rituximab (BR) regimen, two patients opted alternative treatment. Median survival was 9 months. Eleven patients died due to progressive disease, four died of infection, and two patients were alive at the time of analysis. Recently, Parikh *et al*., from Mayo Clinic, reported an incidence of 2.3% in 1,641 cases of CLL, while Fan *et al*., reported a higher incidence of 10.7% in 149 Chinese patients.[4,5] In our study the incidence is 5%. Median time to develop RS is 3-4 years in published literature and was 27 months in our study. In our analysis, the median age was found to be 47 years with 60% of the patients being advanced Rai stage. A possible reason for, younger affected population in this study might be the failure of elderly patients from remote areas to seek treatment. The incidence of RS is 5% at our institute, with a relatively younger affected population, and advanced Rai stage at diagnosis. Younger patients who respond to initial therapy should be offered allogeneic stem cell transplantation (SCT) and the possibility of targeted therapy for RS may be explored in future to improve the outcome.

Table 1: Clinicohematological parameters of 17 patients of RS

Baseline characteristics	
Age (range)	47 years (28-65)
Males, *n* (%)	13 (76.4%)
Females, *n* (%)	4 (23.6%)
Hepatomegaly, *n* (%)	4 (23.6%)
Splenomegaly, *n* (%)	9 (53%)
Hemoglobin (g/dL)	11.60 (7.2-14.0)
Total leukocyte count ($\times 10^9$/L)	48 (12-260)
Absolute lymphocyte count ($\times 10^9$/L)	40 (10-220)
Platelet count ($\times 10^9$/L)	1.6 (0.7-420)
Rai stage (*n* (%))	
0	0 (0)
I	2 (11.9)
II	6 (35.2)
III	3 (17.6)
IV	6 (35.2)

RS=Richter's syndrome

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