Treatment strategy of patients with relapsed and refractory aggressive B-cell non-Hodgkin lymphoma

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Background

Up to 40-50% of patients with aggressive B-cell non-Hodgkin lymphoma (B-NHL) remaining refractory or relapsing (r/r) after 1-2 lines of therapy. The prognosis of this patient's group remains unfavorable. However, the emergence of new methods of targeted and immunotherapy (polatuzumab vedotin, glofitamab) can improve both progression-free survival (PFS) and overall survival (OS) of patients with r/r B-NHL. A relevant issue is to determine the treatment strategy for this population of patients, as well as the place for allogeneic hematopoietic stem cell transplantation (allo-HSCT).

Materials and methods

The study included 28 patients with r/r B-NHL treated with the bispecific agent (anti-CD20/anti-CD3) glofitamab (G) within the Russian Named Patient Program. G was prescribed in escalated regimen: 2.5 mg D8C1, 10 mg D15C1, 30 mg D1C2-12. Anti-CD20 antibody was administrated 1 week before the start of G therapy.

Overall response rate (ORR), PFS, OS were analyzed during therapy with G with respect of prior treatment strategy. Efficacy was assessed by PET-CT (Lugano criteria). Adverse events (AEs) were analyzed using NCI CTCAE 5.0.

Results

Median age at G initiation was 50 (21-83), male/female ratio - 11/17 (39/61%). Median number of previous lines before G was 3 (2-8). Autologous SCT was conducted in 7 (25%) pts, polatuzumab vedotin (Pola) in 7 (25%) pts. ECOG>1 at G initiation was in 7 (25%) pts, B symptoms in 6 (21%) pts and bulky disease in 8 (29%) pts. Median follow-up was 6 (1-15.9) months [Table 1].

Table 1: Patient's characteristics

Characteristics	N=28
Diagnosis, n (%)	
Diffuse large B-cell lymphoma (including transformed DLBCL)	18 (64)
Primary mediastinal large B-cell lymphoma	5 (18)
Follicular lymphoma (3A-3B)	4 (14)
Mantle cell lymphoma	1 (4)
Median age, y (range)	50 (21-83)
Primary refractory/early relapse, n (%)	18/3 (64/11)
Number of previous lines, n (range)	3 (2-8)
Previous HSCT, n (%)	7 (25)
Previous polatuzumab vedotin, n (%)	7 (25)
Status at G therapy, n (%)	2
PD	4 (86)
SD	2 (7)
PR	2 (7)
Stage at G therapy, n (%)	
III-IV	27 (96)
ECOG status at G therapy, n (%)	21 (75)
0-1	7 (25)
≥2	
B-symptoms at G therapy, n (%)	6 (21)
Bulky disease at G therapy, n (%)	8 (29)

ORR was 67%: complete response (CR) - 15 (56%) pts, partial response (PR) - 3 (11%), stable disease (SD) - 1 (4%), progressive disease (PD) – 8 (30%) pts [Fig. 1]. Eight patients died during G therapy including 5 (18%) pts due to PD.

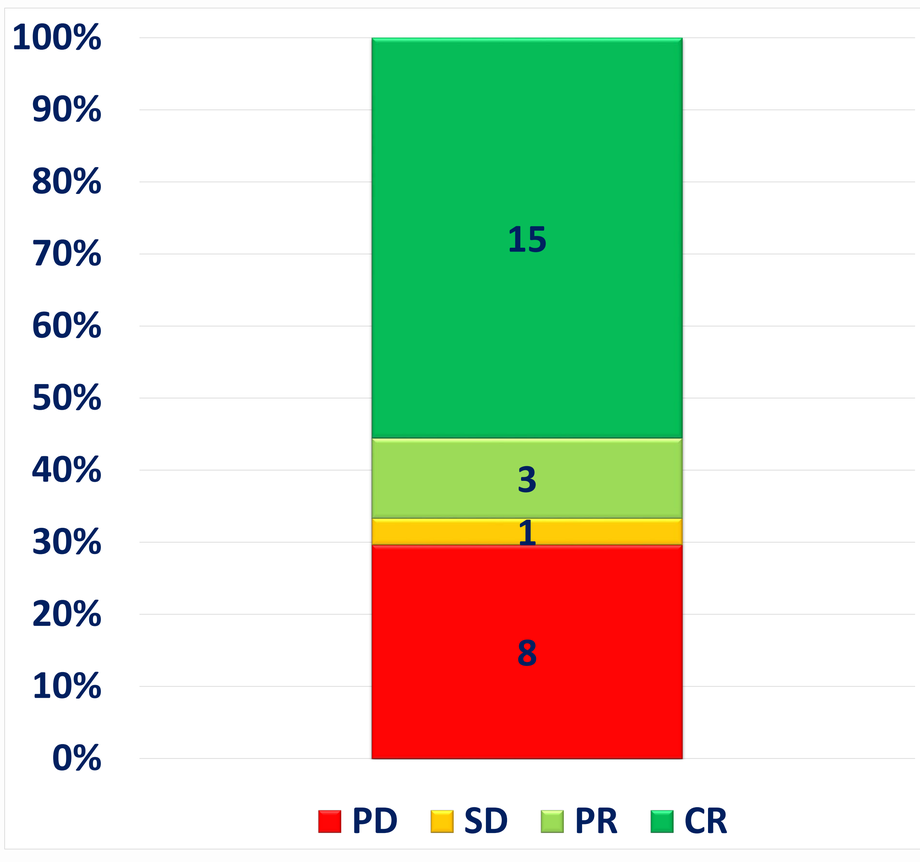

Fig. 1: Best response to glofitamab

Eight patients died at the time of analysis, including 5 (18%) due to PD. Median OS was not reached, 6-month OS was 75.1% (95% CI, 52.0–88.2) [Fig. 2], median PFS was 10.7 months (95% CI, 5.4-NA), 6-month PFS 58.8% (95% CI, 35.9-75.9) [Fig. 3]. Factors such as the number of previous lines, r/r course, auto-HSCT, Pola did not influence both OS and PFS, and the achievement of response to G.

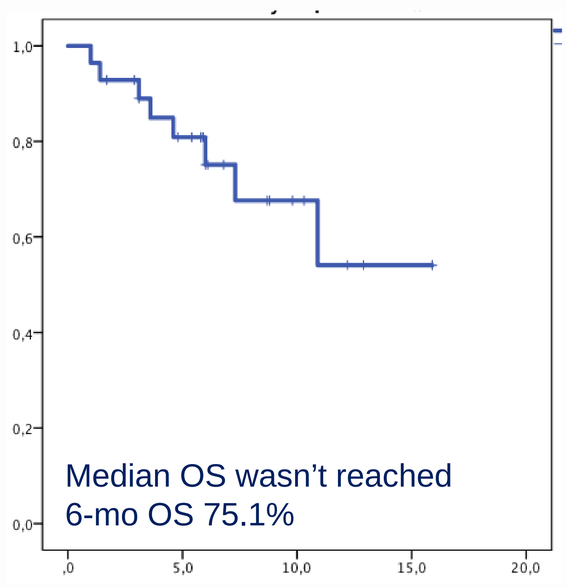

Fig. 2: OS after glofitamab

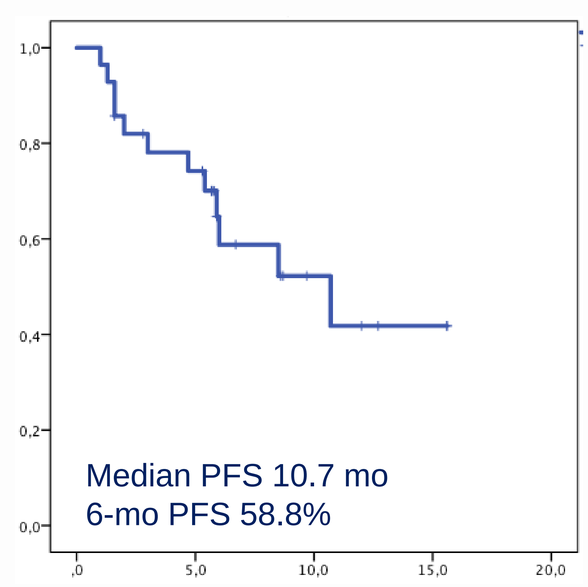

Fig. 3: PFS after glofitamab

At analysis 22 (79%) pts discontinued therapy due to PD (n=10, 36%), 5 (18%) pts - severe COVID-19, 5 (18%) pts - therapy completion and 2 (7%) pts - other reason. The median G cycles were 6 (2-12). Any grade COVID-19 was revealed in 9 (32%) pts. Three pts (11%) died due to severe COVID-19.

The group of patients who received Pola-BR (n = 7) before G therapy was analyzed: CR was achieved by 3 pts, PR by 2 and PD by 2 pts. In patients who achieved CR during Pola-BR therapy (n =3), 2 pts had the relapse during therapy, 1 - after 11 months after Pola-BR completion. The achievement of response to Pola-BR did not affect the achievement of response during G therapy.

Conclusion

New targeted and immunoagents significantly improves the prognosis of patients with r/r B-NHL. However, the curative potential of such therapy has not yet been determined, which requires continued observation, as well as the selection of patients who will benefit from allo-HSCT.

Disclosure of interest: none