Discontinuation of immune checkpoint inhibitors in patients with relapsed and refractory classical Hodgkin lymphoma

Fedorova LV, Lepik KV, Kotselyabina PV, Kondakova EV, Popova MO, Borzenkova ES, Moiseev IS, Mikhailova NB, Kulagin AD

RM Gorbacheva Research Institute, Pavlov University, St. Petersburg, Russia

Background

Despite achievements in the therapy of relapsed and refractory classical Hodgkin lymphoma (r/r cHL) after anti-PD-1 therapy emergence, particular problems remain unresolved including the issue of anti-PD-1 therapy duration and criteria of therapy discontinuation.

Aim

To assess outcomes of patients with r/r cHL after nivolumab discontinuation (Nivo) depending on the response at the moment of therapy discontinuation and Nivo dose.

***Table 1**: Patient's characteristics*

Characteristics	Patients
Patients, N	42
Median age, years (range)	35 (21-53)
Sex male/female (%)	9/33 (21/79)
Median number of previous lines of therapy (range)	5 (2-10)
Prior radiotherapy, N (%)	22 (52)
Prior high-dose therapy with autologous stem cell transplantation (%)	15 (36)
Brentuximab vedotin in previous therapy (%)	19 (45)
Disease stage at the moment of Nivo initiation (%)	
II	10 (24)
III	3 (7)
IV	29 (69)
Extranodal involvement at the moment of Nivo initiation (%)	26 (62)
B-symptoms at the moment of Nivo initiation (%)	24 (57)
Disease status before Nivo therapy (%)	
Progressive disease	30 (71)
Partial response	6 (14)
Stable disease	4 (9)
Nivo dose (%)	
3 mg/kg	27 (64)
40 mg	15 (36)
Disease status at the moment of Nivo discontinuation (%)	
Complete response	36 (86)
Partial response	6 (14)
Median number of Nivo cycles (range)	24 (11-30)
Median number of Nivo cycles before BOR (range)	6 (6-24)
Median time of Nivo duration after BOR achievement (range)	7 (0-16)

Disclosure of interest: none

Materials and methods

This retrospective analysis included 42 patients (9 male/33 female) with r/r cHL who discontinued Nivo due to different reasons: due to adverse events in 5 (12%) pts, Russian nivolumab named patient program or Nivo40 study (NCT03343665) discontinuation in 35 (88%) and other reasons in 2 (5%) pts. Median age was 35 (21-53). Median number of therapy lines was 5 (2-10). ASCT was conducted in 15 (36%) pts, brentuximab vedotin - in 19 (45%) pts. At the moment of Nivo initiation disease progression was present in 30 (71%) pts, B-symptoms - in 24 (57%) pts, extranodal involvement – in 26 (62%) pts. Twenty-seven (64%) patients were treated with Nivo 3 mg/kg and 15 (36%) pts- Nivo 40 mg disregard of body mass. Nivo was discontinued in complete response (CR) in 36 (86%) pts and in partial response (PR) in 6 (14%) pts. Median number of Nivo cycles was 24 (11-30). Median number of Nivo cycles before the best overall response (BOR) achievement was 6 (6-24). Median time of Nivo duration after BOR achievement was 7 (0-16) months [Tab. 1].

Response to therapy was accessed by PET-CT using Lyric criteria.

***Figure 1:** 2y-PFS depends on response achievement at the moment of Nivo discontinuation*

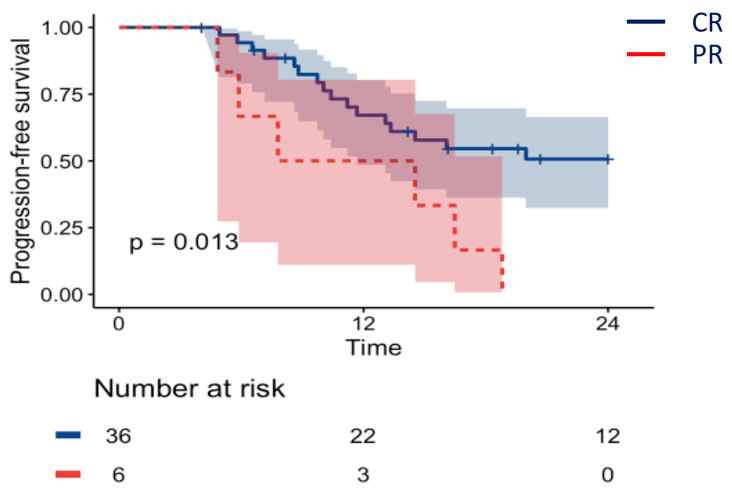
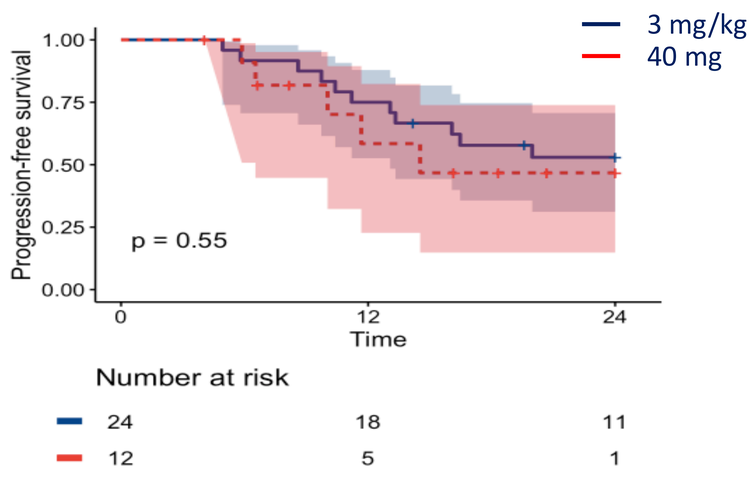


***Figure 2:** 2y-PFS depends on Nivo dose*



Results

Median follow-up after Nivo discontinuation was 26 (4-41) months. All patients were alive at the moment of analysis. Median PFS for patients who discontinued Nivo in CR was 24,1 (95%CI: 11.2-37) months, in PR 7,8 (95%CI: 0-18.2) months. Thus, the response at the moment of Nivo discontinuation significantly influenced 2-year PFS: 51% (95%CI: 32-66%) vs 0%, p=0.013 [Fig.1]. There were no significant differences in 2-year PFS between patients treated with different Nivo doses at the moment of discontinuation: 53% (95%CI: 31-71%) for 3 mg/kg vs 47% (95%CI: 15-74%) for 40 mg, p=0.55 [Fig. 2].

Conclusions

Durable remission is possible for patients with r/r cHL after Nivo discontinuation in CR. Moreover, Nivo dose did not influence the duration of remission after Nivo discontinuation. There is need in prospective randomized trials assessing optimal Nivo treatment regimen and duration.

Contacts

Liudmila Fedorova
E=mail: md.FedorovaL@mail.com
Tel.: +79217704992