

The addition of bendamustine to Brentuximab vedotin leads to improved rates of complete metabolic remission in children, adolescents and young adults with relapsed and refractory classical Hodgkin lymphoma: a retrospective single centre series

A. McMillan¹, A. T. O'Neill¹, W. Townsend¹, J. Lambert¹, A. Virchis¹, R. Shah², L. Menezes³, P. Humphries³, K. Von Both², V. Grandage⁴, R. Hough⁴, B. Carpenter⁴, K. M. Ardeshta¹, S. Daw⁴

¹ University College London Hospital NHS trust, Haematology, London, United Kingdom

² University College London Hospital NHS trust, Pharmacy, London, United Kingdom

³ University College London Hospital NHS trust, Radiology, London, United Kingdom

⁴ University College London Hospital NHS trust, Children and Young People's Cancer Service, London, United Kingdom

Introduction

The majority of children and young people with classical Hodgkin lymphoma (cHL) are cured with first line treatment.¹ Cure may be achieved in the relapsed/refractory (R/R) setting when salvage chemotherapy yields complete response (CR) rates ranging from 20-60%.² Brentuximab vedotin (Bv) is a novel agent increasingly used in R/R cHL, with CR rates of 33% when used as monotherapy in a phase I/II paediatric trial.³ Single agent bendamustine achieved a CR rate of 33% in adults with R/R cHL.⁴ A number of studies have reported that the combination of Bv plus bendamustine (Bv+B) in adults achieves superior outcomes to either agent alone.² Achievement of complete metabolic remission (CMR) prior to autologous stem cell transplantation (ASCT) is highly predictive of long term progression free survival in R/R cHL.⁵

Methods

We present a series of 29 consecutive patients treated with Bv+B as second line or later relapse therapy with R/R HL at our institution. Patients (age range 9-28 years) were treated from May 2015 to December 2019. 20 patients (69%) had primary refractory disease. Median number of prior treatment lines was 2, including ASCT in 4 patients. Patients received bendamustine (90mg/m²) on days 1 and 2, and Bv (1.8mg/kg) on day 2 of a 21 day cycle, with responses assessed after 2 cycles, with CMR indicated by Deauville score 1, 2 or 3.

Results

Overall response rate (ORR) was 83% (24/29), with CMR in 79% patients (23/29). One patient achieved a partial response, 14% (4/29) had persistent disease, and one patient had progressive disease. All patients received consolidation therapy, 18 with LEAM- conditioned autologous transplantation, and 11 with allogeneic transplantation. Progression free and overall survival at 24 months are 64% and 90% respectively.

In total 66% (19/29) experienced grade 3 or 4 toxicity. Infusion related reactions affected 52% (15/29) of patients, G3/4 in 17% (5/29), particularly on day 1 of cycle 2. They were reduced (although remained

significant) by the incorporation of pre-medication with 100mg methylprednisolone and 10mg chlorphenamine on day 1 and 2 of each cycle.

Conclusion

This series indicates that combination Bv+B is a highly active salvage regimen for children and young adults with R/R cHL. Although this data is retrospective and non-randomised, the CMR rates are higher than those reported with either drug used as single agent providing a bridge to SCT with the majority of patients achieving a pre-transplant CMR.

Acknowledgment

None to declare.

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