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ASCIMINIB AS A BRIDGE TO ALLOGENIC TRANSPLANT IN 3 PATIENTS WITH RELAPSED/REFRACTORY PHILADELPHIA CHROMOSOME-POSITIVE ALL OR CML LYMPHOID BLAST CRISIS REFRACTORY/INTOLERANT TO PONATINIB

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INTRODUCTION

Relapsed Ph+ precursor ALL/CML lymphoid blast crisis that is refractory to ponatinib -has a dismal prognosis.

We describe 3 interesting cases of Ph+ ALL/CML lymphoid blast crisis who were refractory/intolerant to ponatinib therapy and treated with mini-hyper-CVD/asciminib/inotuzumab as a salvage therapy to achieve MRD negativity and proceed to allogeneic transplant.

CASE 1

- 22 year / Female
- Received BFM-90 induction + dasatinib 100mgPost induction chemotherapy
- Bone marrow examination revealed 77% blasts.
- Started on ponatinib- discontinued after 2 weeks due to grade 4 skin toxicity
- Started on mini-hyper-CVD with inotuzumab and asciminib at a dose of 200 mg twice daily
- Achieved MRD negative status (both flow and molecular MRD)
- Taken up for haploidentical transplant with her brother as donor.

CASE 2

- 28 year / Female
- Ph+ precursor B-ALL started on BFM 2002 protocol with ponatinib
- Achieved morphological remission after induction
- But disease progression after consolidation phase while awaiting transplant
- Started on mini-hyper-CVD with inotuzumab and asciminib
- Achieved morphological remission with an MRD-positive status (flow MRD, 0.2%; BCR ABL, 0.3%)
- Given 1 cycle of blinatumumab with asciminib
- Became MRD negative
- Taken up for haploidentical transplant.

CASE 3

- 44-year , male
- Diagnosed with CML lymphoid blast crisis in 2023
- IRMA test revealed BCR-ABL T315I mutation
- Started on ponatinib with BFM 2002 chemotherapy
- No response to treatment,
- Disease progression on ponatinib
- Switched to asciminib (200mg BD) along with mini-hyper-CVD with inotuzumab
- After 1 cycle of treatment, he turned MRD negative
- Taken up for matched sibling donor allogeneic transplant

CONCLUSIONS

Mini-hyper-CVD with inotuzumab and asciminib is an effective salvage therapy for patients with Ph+ precursor B-ALL or CML lymphoid blast crisis who are refractory or intolerant to ponatinib, serving as a bridge to allogeneic transplant

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