Expanding Frontline Therapy: BV-AVD in the Understudied HIV-Positive Classical Hodgkin's Lymphoma Population

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Introduction

In the ECHELON-1 trial, brentuximab vedotin (BV), an anti-CD30 antibody-drug conjugate, replaced bleomycin in ABVD—establishing BV-AVD (brentuximab vedotin, doxorubicin, vinblastine, dacarbazine) as a new frontline standard for classical Hodgkin's lymphoma (cHL).
While BV-AVD improved survival and reduced pulmonary toxicity in HIV-negative patients, people living with HIV (PLWH) were excluded from these trials.
ABVD with antiretroviral therapy (ART) has demonstrated acceptable outcomes in PLWH, but the safety and efficacy of BV-AVD in this population remain poorly characterized.
Given the unique lymphoma pathogenesis in PLWH,driven by oncogenic viruses and immune dysregulation, this study aimed to assess the safety and clinical activity of BV-AVD in patients with HIV-associated cHL.

Aim

- To assess the safety and clinical activity of BV-AVD in patients with HIV-associated cHL
- In this case series we outline the safety of BV-AVD (Echelon-1 Protocol) in six patients with newly diagnosed HIV-associated cHL.

Methods

- We retrospectively identified six PLWH with advanced-stage cHL treated with BV-AVD between 2022 and 2024 at a single institution.
- Demographic, HIV-related (CD4 count, viral load), clinical, and treatment data were extracted from electronic medical records.
- Adverse events were graded according to the Common Terminology Criteria for Adverse Events (CTCAE).
- Descriptive statistics were used to summarize safety and response outcomes.

Clinical Characteristics of Patient Cohort

Age	Gender	Classification of Lymphoma	CD4	Stage	EBV
34	Male	LD-cHL	103	IV	-
36	Male	NS-cHL	97	IV	-
37	Male	MC-cHL	164	IV	+
45	Female	MC-cHL	449	IV	-
58	Female	NS-cHL	164	IV	+
78	Male	NS-cHL	260	IV	+

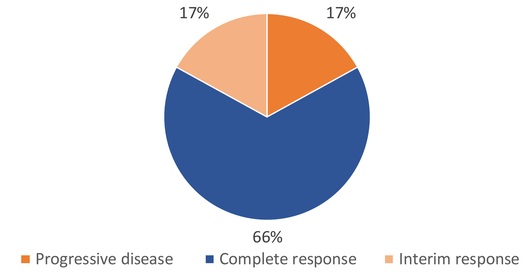
LD-cHL
- Lymphocyte-Depleted Classical Hodgkin Lymphoma
- *Rare, aggressive subtype, often associated with HIV or immunosuppression*

MC-cHL
- Mixed Cellularity Classical Hodgkin Lymphoma
- *Common subtype, frequently associated with EBV positivity & HIV*

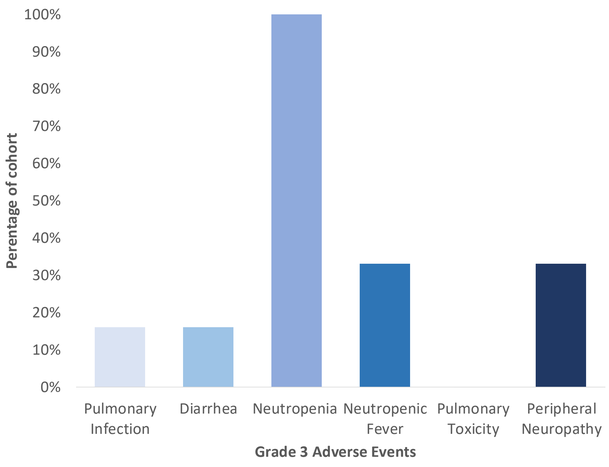
NS-cHL
- Nodular Sclerosis Classical Hodgkin Lymphoma
- *Most common subtype overall in developed countries, often in young adults*

Results

Clinical Response to BV-AVD



CTCAE Grade III Adverse Events Among Study Population



Discussion

- In this retrospective series of six PLWH with stage IV cHL, BV-AVD achieved a 66% complete response rate, broadly consistent with outcomes in HIV-negative patients from the ECHELON-1 trial (3-yr PFS 83.1% vs 76% with ABVD; 5-yr PFS 82.2% vs 75.3%)
- Neutropenia was universal and febrile in one-third, leading to the use of secondary G-CSF prophylaxis in this cohort. In ECHELON-1, similar early events prompted a protocol amendment mandating primary prophylaxis from cycle 1, underscoring the vulnerability of PLWH to myelosuppression and infection.
- Peripheral neuropathy occurred in one-third of patients and was managed with gabapentin and dose modification, with eventual improvement.
- No pulmonary toxicity was observed, reinforcing the advantage of BV-AVD over bleomycin-containing regimens.
- Case heterogeneity—including variable ART tolerance, infectious complications, comorbidities, and EBV-positive disease reflects the complexity of real-world management.
- Pembrolizumab demonstrated activity in relapsed/refractory cases, consistent with its role in HIV-negative cHL.

Conclusion

- BV-AVD was well tolerated in this series of PLWH with cHL, with a manageable toxicity profile and promising response rates.
- These findings support further investigation of BV-AVD in HIV-associated cHL, a population historically underrepresented in prospective lymphoma trials.
- Immunotherapy may offer an effective salvage strategy in relapsed/refractory disease and warrants continued study in this setting.

References

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