CLINICAL EFFICACY AND SAFETY OF PEMBROLIZUMAB AND NIVOLUMAB IN FRONTLINE TREATMENT FOR CLASSICAL HODGKIN LYMPHOMA: SYSTEMATIC REVIEW & META-ANALYSIS

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Introduction

Treatment of classical Hodgkin lymphoma (cHL) underwent substantial advances in the last decades. Until recently, standard of care for advanced cHL was Brentuximab Vedotin + AVD (BV+AVD)[1] or Escalated BEACOPP (for young and fit patients)[2] that replaced historical ABVD regimen. PD(L)-1 inhibitors were shown to improve clinical outcomes in patients with cHL.[3]

The current work investigates the clinical efficacy and safety of pembrolizumab and nivolumab for frontline treatment for cHL.

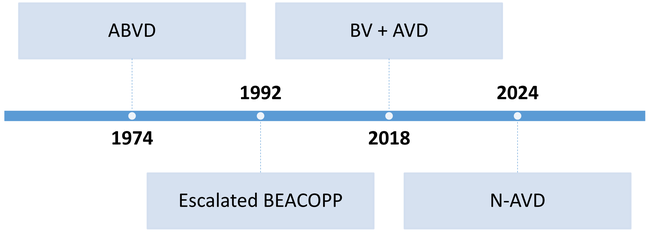
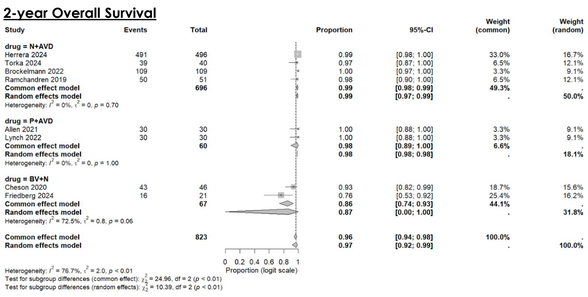


Fig 1. Pooled data analysis for key outcomes



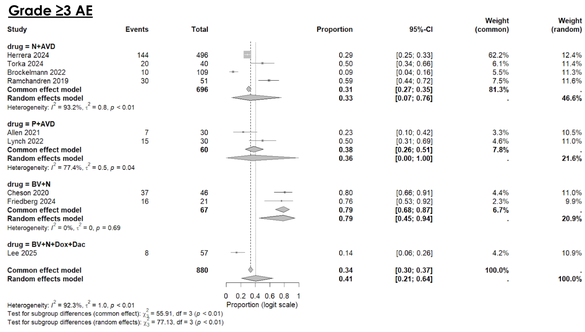
Methods

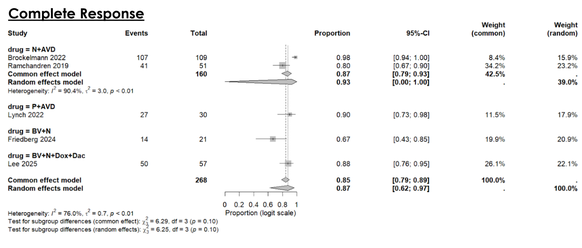
- Literature search through
  - PubMed • EBSCO Host • CENTRAL
- Population
  - Advanced disease (stage III/IV)
  - Early disease (stage I/II) with
    - Unfavorable prognosis
    - Unfit for standard therapy
- Inclusion criteria
  - •Full-text •English language •Original data
- Outcomes
  - Complete response (CR)
  - Overall response rate (ORR)
  - 2-year overall survival (OS)
  - 2-year progression-free survival (PFS)
  - Grade ≥3 adverse events (AE)

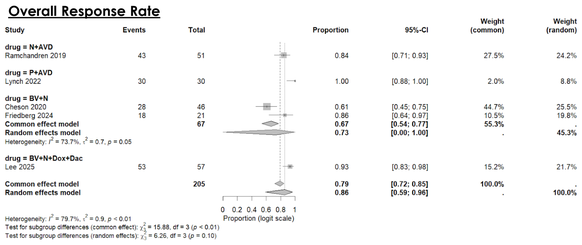
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Results

- n=**9 RCTs** (Phase II/III), **880 patients**
  mean age: 44 years, median follow-up of 31.2 months
  - Nivolumab +AVD (n=4)
  - Pembrolizumab +AVD (n=2)
  - Nivolumab +BV (n=2)
  - Nivolumab +BV, doxorubicin, dacarbazine (n=1)
  - Concurrent use with chemotherapy (n=6), sequential use (n=2), both (n=1)
- Pooled analysis: CR 87%, ORR 86%, 2-y OS 97%, 2-y PFS 90%, Grade ≥3 AE 41%
- **Pembrolizumab +AVD ≈ Nivolumab +AVD**
  - 2-y PFS: 97% (95%CI, 88-99) vs 92% (95%CI, 89-94)
  - 2-y OS: 98% (95%CI, 88-100) vs 99% (95%CI, 99-100)
  - Grade ≥3 AE: 36% vs 33%
- Nivolumab +BV had worse outcomes:
  - ORR 73%, CR 67%, 2y PFS 70%, 2y OS 87%, AE 79%
  - older population (mean age of 71.5 years)







Conclusion

Implementation of nivolumab or pembrolizumab in frontline treatment for newly diagnosed cHL can become a new standard of care in advanced disease or those who are unfit for standard treatment.

References

1. Ansell et al. Overall survival with brentuximab vedotin in stage III or IV Hodgkin's lymphoma. NEJM. 2022.
2. Engert et al. Escalated-dose BEACOPP in the treatment of patients with advanced-stage Hodgkin's lymphoma. JCO. 2009.
3. Herrera et al. Nivolumab+ AVD in advanced-stage classic Hodgkin's lymphoma. NEJM. 2024.

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