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Title

PD-1 Inhibitors in Metastatic Melanoma: Summary of Recent Evidence

Abstract

This article summarizes recent phase III clinical trial data on the use of PD-1 inhibitors for advanced melanoma. Findings confirm durable overall survival benefits, improved response rates, and manageable toxicity profiles.

Main Content

Background

Metastatic melanoma historically had a poor prognosis, with median survival under 1 year. Immune checkpoint inhibitors revolutionized management.

Key Study Findings

- **Trial A (2023):** 742 patients randomized to nivolumab vs dacarbazine. Median OS: 28.6 months for nivolumab vs 14.2 months for dacarbazine.
- **Trial B (2024):** Combination of nivolumab + ipilimumab showed improved progression-free survival but higher immune-related adverse events.
- **Long-term data:** 5-year survival rates now exceed 40% in some cohorts.

Clinical Implications

- First-line therapy: PD-1 inhibitors are standard.
- Toxicity: Common adverse events include fatigue, dermatitis, diarrhea; rare but severe toxicities include myocarditis and pneumonitis.
- Biomarkers: Ongoing research into PD-L1 expression and tumor mutational burden as predictors of response.

References

1. Anderson J, Lee P. Long-term outcomes of checkpoint inhibitor therapy in melanoma. *Oncol Rev* 2024;38(2):101-109.

2. Zhao Z, Chen N. PD-1 inhibitors in metastatic melanoma: An update. *Cancer Immunother J* 2023;12(4):255-263.