775P: TREATMENT OF KAPOSI SARCOMA WITH IMMUNE-CHECKPOINT INHIBITORS:

A Systematic Review and Single-Arm Meta-Analysis

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BACKGROUND

❖ Kaposi sarcoma (KS) is a rare cutaneous tumor of endothelial origin, caused by human herpesvirus type 8. Chemotherapy is the standard treatment for KS patients with extensive cutaneous or visceral disease. However, long-term remission is rare. Early phase studies of immune checkpoint inhibitors (ICI) in KS patients have demonstrated acceptable safety and efficacy profiles. We conducted a systematic review and meta-analysis of efficacy and safety of ICI in patients with KS.

METHODS

- ❖ We searched for clinical trials and observational cohort studies assessing KS patients treated with ICI on PubMed, Scopus, the Cochrane Library, ASCO publications, ESMO and AACR databases.
- ❖ Efficacy was measured as best overall response rate (BORR), which is defined as the proportion of patients who have a partial (PR) or complete response (CR) to therapy.
- ❖ Heterogeneity was examined with the Cochran Q test and I(2) statistics; p values < 0.05 and I(2) > 25% were considered significant for heterogeneity. We used a DerSimonian and Laird random effects model.

RESULTS

- ❖ We included five studies: four phase I/II clinical trials and one observational retrospective cohort, for a total of 65 patients. Fifty-three (81.5%) had previously received at least one treatment for KS.
- ❖ Forty-seven (72%) received single agent anti-PD1 and 18 (28%) the combination of nivolumab 240 mg d1, d15, d28 and ipilimumab 1mg/kg d1 q.42 days.
- ❖ In a pooled analysis, BORR was 58% (95% CI 39, 77). Five patients achieved complete response (CR), 32 had partial response (PR) and 2 had sustained stable disease (SD) for ≥ 24 months.
- ❖ Patients with classic and endemic KS had a BORR of 74% (95% CI 60, 89) with a follow-up of >20 months. HIV-related KS patients had a BORR of 44% (95% CI 22, 66) with a follow-up range of 3.7 to 5 months.
- ❖ Grade 3 or 4 toxicity were reported in 6/44 patients (13.6%). One patient died of KS herpesvirus associated polyclonal B-cell proliferation.

CONCLUSIONS

- ❖ This single-arm meta-analysis confirms that ICI has anti-tumor activity in patients with KS. Other studies are ongoing and may shed more light on the activity of ICI in KS. Larger phase 3 studies with longer follow up are warranted.

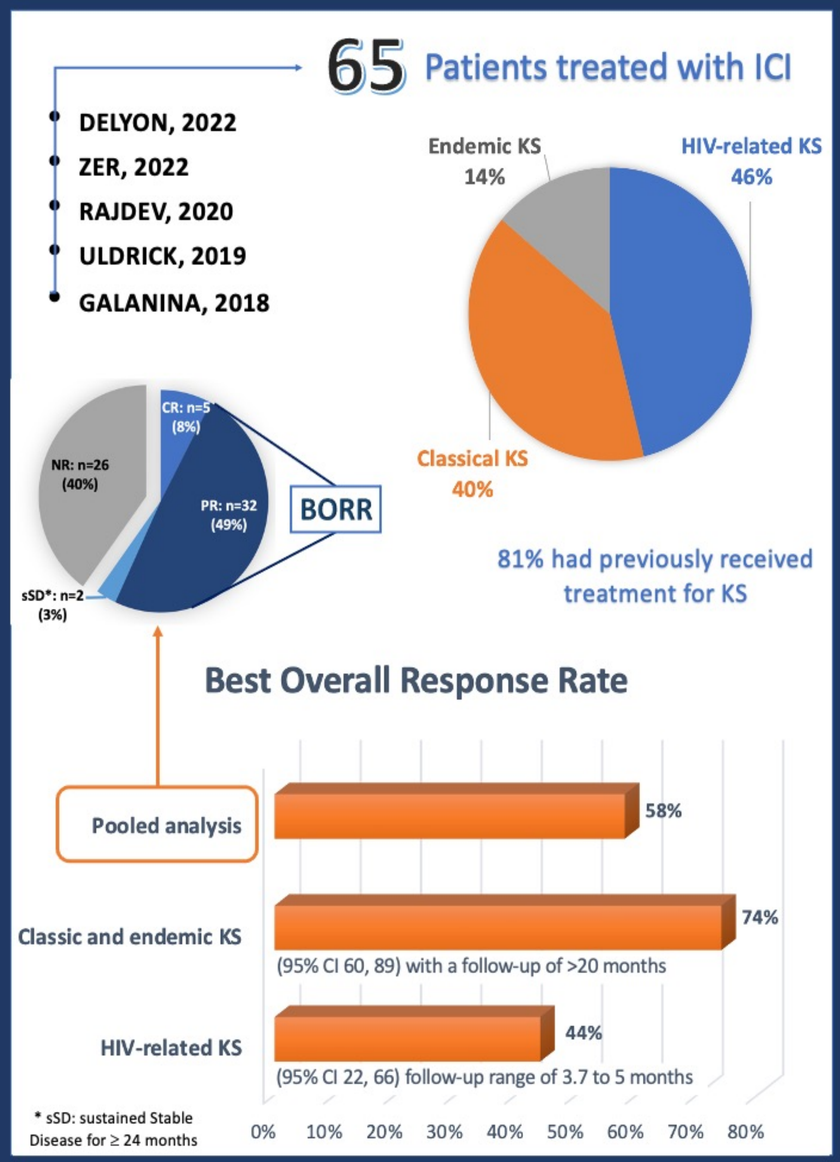
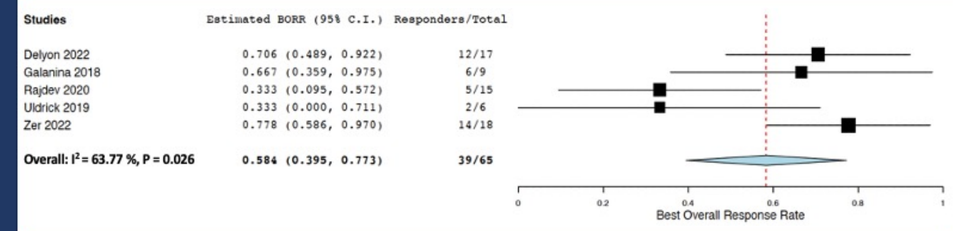


Table 1. Characteristics of studies included in the meta-analyses.

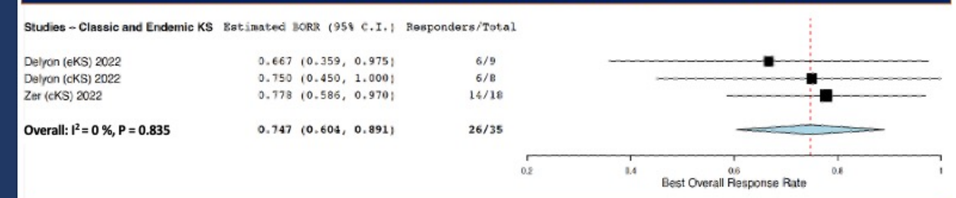
Study	Design	Intervention	No. of Patients	Type of KS	Previous treatments
Delyon 2022	Phase II	Pembro	17	8 C, 9 E	12 pts: 5 RT, 3 IFN, 11 CT
Zer 2022	Phase II	Nivo + Ipi	18	18 C	18 pts: 12 RT, 4 IFN, 16 CT, 1 pazopanib
Rajdev 2020	Phase I	Nivo	15	15 HIV	15 pts: NA
Uldrick 2019	Phase I	Pembro	6	6 HIV	>2 pts: NA
Galanina 2018	Retrospective cohort	Nivo or Pembro	9	9 HIV	6 pts: 5 CT, 3 Lenalidomide

Footnote: Pembro: pembrolizumab; Nivo: Nivolumab; Ipi: Ipilimumab; NA: not available; KS: Kaposi sarcoma C: classic; E: endemic; pts: patients; RT: radiation therapy; IFN: intereron; CT: chemotherapy.

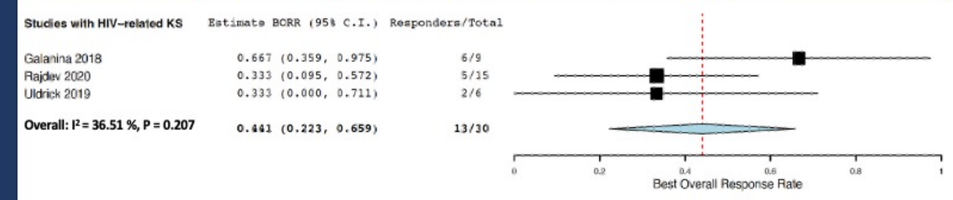
Pooled analysis of Kaposi Sarcoma patients treated with ICI



Classic and Endemic Kaposi Sarcoma patients treated with ICI



HIV-related Kaposi Sarcoma patients treated with ICI



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The first author has no conflicts of interest to declare.