Outcomes after pegylated liposomal doxorubicin for Kaposi sarcoma in Mozambique

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BACKGROUND

- Standard care for AIDS-associated Kaposi sarcoma (KS) in Mozambique includes ART and a combination of conventional doxorubicin, bleomycin & vincristine (ABV).
- The *Centro de Referencia de Alto-Maé* (CRAM) is an intermediate level ambulatory structure dedicated to HIV and TB in Maputo.
- From 2010-2015, 1567 patients with KS were treated at CRAM, receiving a median of 12 cycles of chemotherapy. At 2 years, 43% had died or were lost to follow up.
- To improve outcomes and retention, MSF began offering pegylated liposomal doxorubicin (PLD) as first-line therapy for KS.

METHODS

- Single-arm, prospective observational study.
- Principal eligibility criteria:
  - Chemotherapy-naïve adults.
  - T1 KS or T0 KS not responding to 6 months of ART.
  - Karnofsky score ≥ 50 and no contraindications to PLD.
- 20 mg/m^2 of PLD administered on 3-week cycles until prespecified stopping criteria met.
- Clinical progression, PHQ-9 and SF-12 (quality of life) were assessed at regular follow-up visits for 2 years.
- Survival analysis: Cox proportional-hazards regression.

Baseline characteristics of enrolled participants

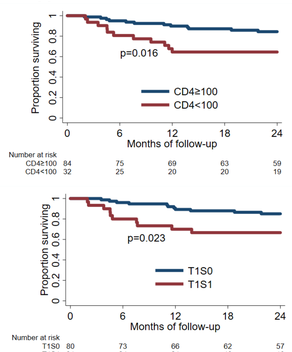
Characteristic	n (%), unless otherwise specified
Gender, n(%)	
Male	74 (64)
Female	42 (36)
Age in years, n(%)	
15-29	20 (17)
30-39	55 (47)
40-49	43 (26)
≥50	11 (10)
Kaposi stage, n(%)	
T1S0	80 (69)
T1S1	31 (26)
T0	5 (5)
Lymphedema present at enrolment	83 (72)
Time on ART in months, n(%)	
0-5	62 (53)
6-11	13 (11)
12-23	16 (14)
≥24	25 (22)
ART regimen, n(%)	
Efavirenz-based	107 (92)
Nevirapine-based	3 (3)
Lopinavir/ritonavir or atazanavir-based	6 (5)
On treatment for TB, n(%)	19 (16)
CD4 (cells/mm3), median (IQR)	218 (73-448)

PLD was safe, well-tolerated and effective for treatment of KS in Mozambique, and should be made more *affordable and accessible* in resource-limited settings.

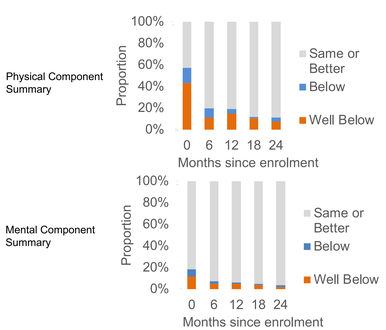
RESULTS

- 116 participants were enrolled beginning March 1, 2016.
- At two years, 67% were alive, 20% had died and 13% had been lost to follow-up.
- **92 (80%) ever achieved complete or partial remission**, after a median of 6 cycles (IQR 5-7).
  - 28% of those achieving remission restarted PLD, after a median time of 6 months (IQR 4-11).
- 65 adverse events were reported; mild/moderate neutropenia and anemia were most common.

Survival: Death was more likely in participants with advanced immunosuppression and T1S1 disease at baseline



Quality of life: SF-12® scores improved within 6 months of starting PLD, particularly on the Physical Component Summary



CONCLUSIONS

- **Overall response rate was high**, with relatively few cycles of PLD, despite advanced KS at baseline.
- PLD was safe and well-tolerated, and quality of life improved rapidly.
- It is critical to **avoid late presentation** – persons living with HIV in this area should be aware of the importance of rapid referral for suspected KS lesions.
- Nonetheless, in settings where many patients present with advanced disease, few will have complete remission.
  - **Improvement in quality of life** could be used to help guide treatment decisions.
  - PLD's favorable side effect profile makes it an attractive option for long-term management of KS.
- Chemotherapies such as PLD, standard in the global north, should be **prioritized for use in low- and middle-income countries**.

ADDITIONAL INFORMATION

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