

EFFICACY, SAFETY AND COST OF POMALIDOMIDE IN RELAPSED AND REFRACTORY MULTIPLE MYELOMA

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BACKGROUND

Patients with relapsed and refractory multiple myeloma (RRMM) have a median survival of about 3-6 months, pomalidomide is a very potent member of the immunomodulatory drug family.

PURPOSE

The aim of the study was to analyse **efficacy, safety and cost** of pomalidomide in patients with RRMM.

MATERIAL AND METHODS

All patients in whom a treatment by pomalidomide was initiated between August 2013 and October 2015 for a RRMM in our teaching hospital were included. We defined 3 groups : Patients who relapsed early (<3months), responding patients and stable patients at 3 months.

Outcomes were : **Predictive factors of early pomalidomide discontinuation (before 3rd month), Overall response rate (ORR, using International Multiple Myeloma Working Group criteria), Overall survival, Safety, Treatment cost per patient.**

RESULTS

63 patients (male, 59%) were included (**Figure 1**). All patients received pomalidomide and dexamethasone.

A time from diagnosis to pomalidomide initiation < 3 years was independently associated with a an early pomalidomide discontinuation (OR = 5.82;95%CI 1.51-22.4;p=0.01),

At 3 months, **ORR** was 51%. The independants risk factors of mortality from pomalidomide initiation were : **early pomalidomide discontinuation** (hazard ratio, 6.8 vs no early discontinuation ; 95%CI, 2.3-19.6;p<0.03) and **hemoglobin level below 11 g/dl** (hazard ratio, 2.7 vs ≥ 11 g/dl ; 95%CI, 10-7.0;p=0.04).

Median **OS** from pomalidomide initiation was **6.4 months in patients who early discontinued pomalidomide, 17.1 months in patients with a stable disease and not achieved in responders** (**Figure 2**).

24 patients required a dose decrease for adverse events. The most common grade ≥ 3 adverse events were **neutropenia (14%) and infections (25%)**.

The mean pomalidomide cost per patient was €79,717 \pm 46,296 (range 17,850 – 241,200) (**Figure 3**): **early discontinuation, € 21,700 \pm 15,084 ; responders, € 88,905 \pm 46,320 ; stable disease, € 56,394 \pm 38,661 ; p<0.03**.

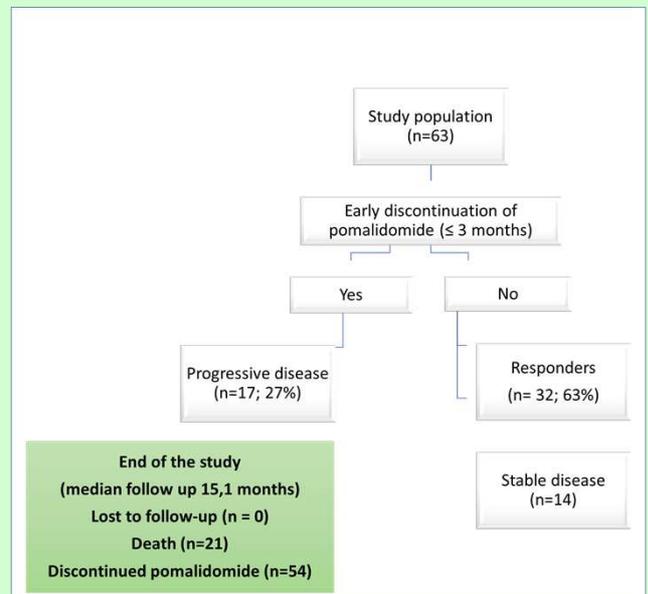


Figure 1. Flowchart of the study

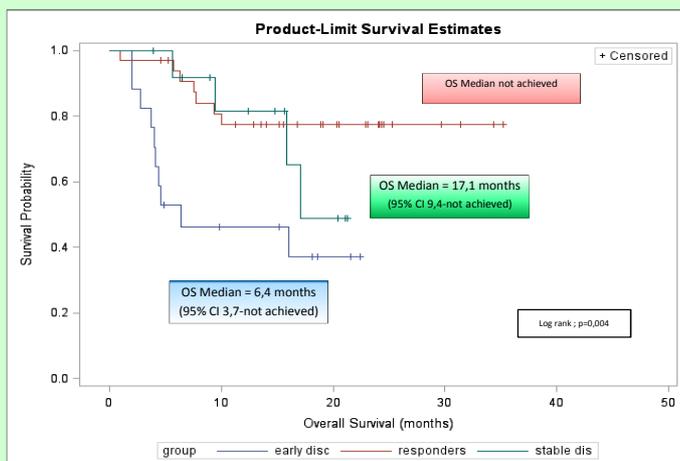


Figure 2. Kaplan Meier estimated overall survival from pomalidomide initiation by group

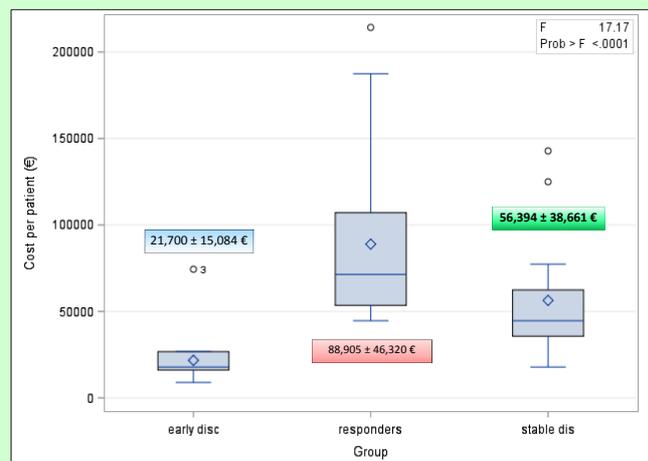


Figure 3. Treatment cost per patient by group (mean cost \pm standard deviation)

DISCUSSION AND CONCLUSION

Compare to the MM-003 phase III trial, we reported similar safety data but a higher ORR (51%vs. 21%). We demonstrated a long-term favorable safety and efficacy profile of pomalidomide in RRMM patients even with a stable disease.