Efficacy of Mogamulizumab in Mycosis Fungoides by Patient Blood Involvement and Time to Response Analysis in Mycosis Fungoides and Sézary Syndrome: a Post Hoc Analysis of the MAVORIC Study

Poster Tre-P-06

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Background

- MAVORIC (NCT01728805) was an international, open-label, randomized, phase 3 clinical study comparing mogamulizumab to vorinostat in relapsed/refractory MF and SS patients, who had failed ≥1 systemic therapy
  - Median time-to-global-response (TTR) was 3.3 months for patients treated with mogamulizumab, though no data were presented for differences by disease subtype
- Previously published post hoc MAVORIC data has shown trends towards higher multicompartmental efficacy with mogamulizumab in MF and SS patients with blood involvement[1]
  - This subset of patients may experience increased risk of disease progression and worse survival[2]

Objective

- This post hoc analysis of MAVORIC data examined the efficacy of mogamulizumab and vorinostat in patients with MF stratified by baseline blood classification, and also analysed TTR for mogamulizumab by disease subtype and by baseline blood classification in those patients with MF

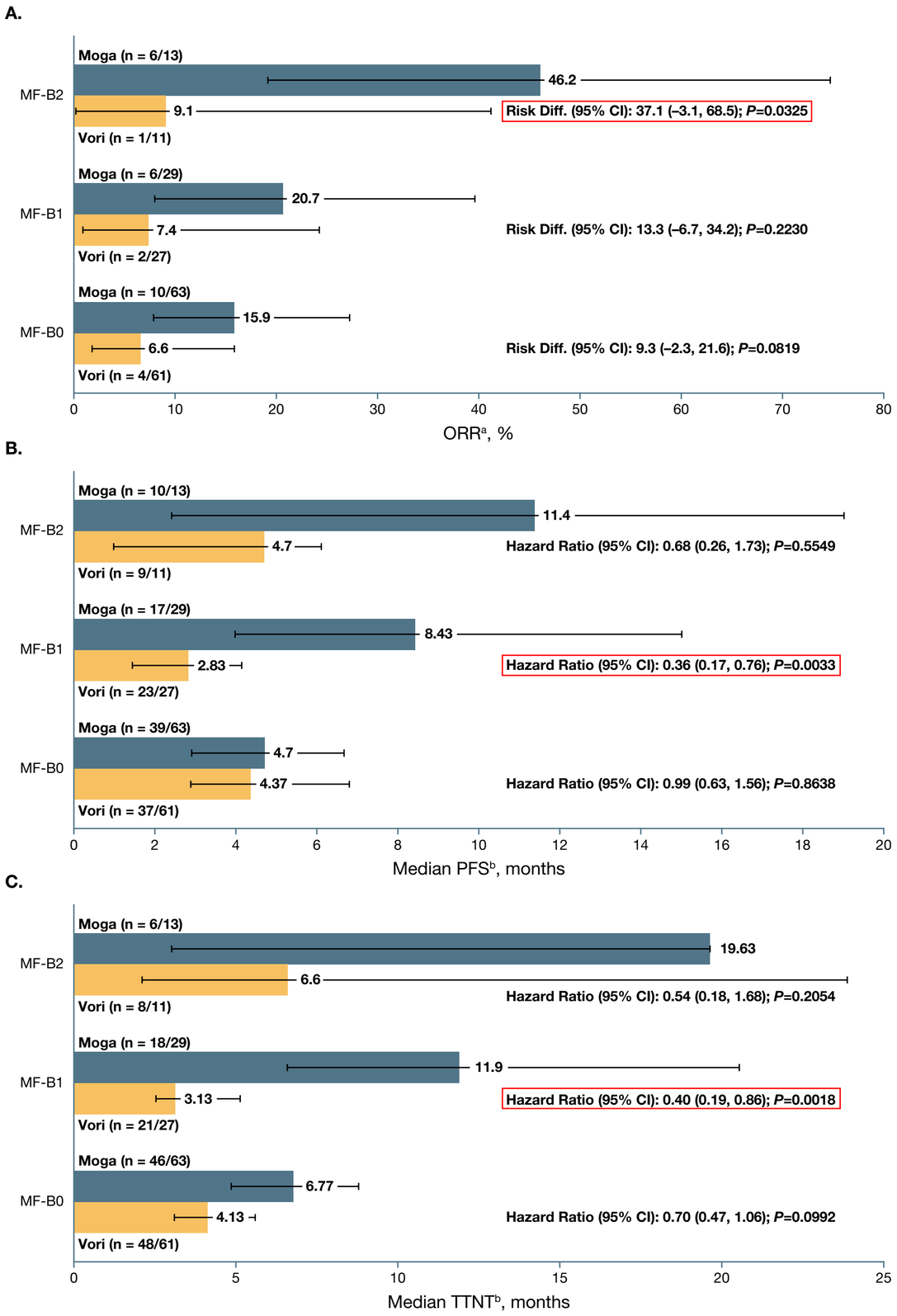
Methods

- In the MAVORIC study, patients were randomized 1:1 to receive either mogamulizumab (n=186; intravenous, 1.0 mg/kg weekly for the first 28-day cycle, then on days 1 and 15 of subsequent cycles) or vorinostat (n=186; oral, 400 mg daily)
  - Vorinostat patients who experienced disease progression or intolerable toxicity could cross over to the mogamulizumab treatment arm
- Efficacy outcomes (progression-free survival, global overall response rate [ORR], and time-to-next treatment [TTNT]) by Investigator's Assessment for patients with MF (mogamulizumab, n=105; vorinostat, n=99) were stratified by baseline blood involvement
- Analysis of TTR by Investigator's Assessment by disease subtype was performed for mogamulizumab-responders (N=52)
  - Further analyses of time-to-global-response and time-to-skin-response were performed in MF responders

Results

- Patients with MF treated with mogamulizumab showed numerically superior results compared to patients treated with vorinostat, for PFS, ORR and TTNT
  - There was a numerical trend with mogamulizumab towards improved results for all analysed endpoints with escalating baseline blood classification (**Figure 1**)
- Superiority for mogamulizumab compared with vorinostat was seen from statistically significant results for B1 patients with MF for PFS (8.43 vs 2.83 months, *P*=0.003) and TTNT (11.9 vs 3.13 months, *P*=0.002), and for B2 patients with MF for ORR (46.2% vs 9.1%, *P*=0.033)

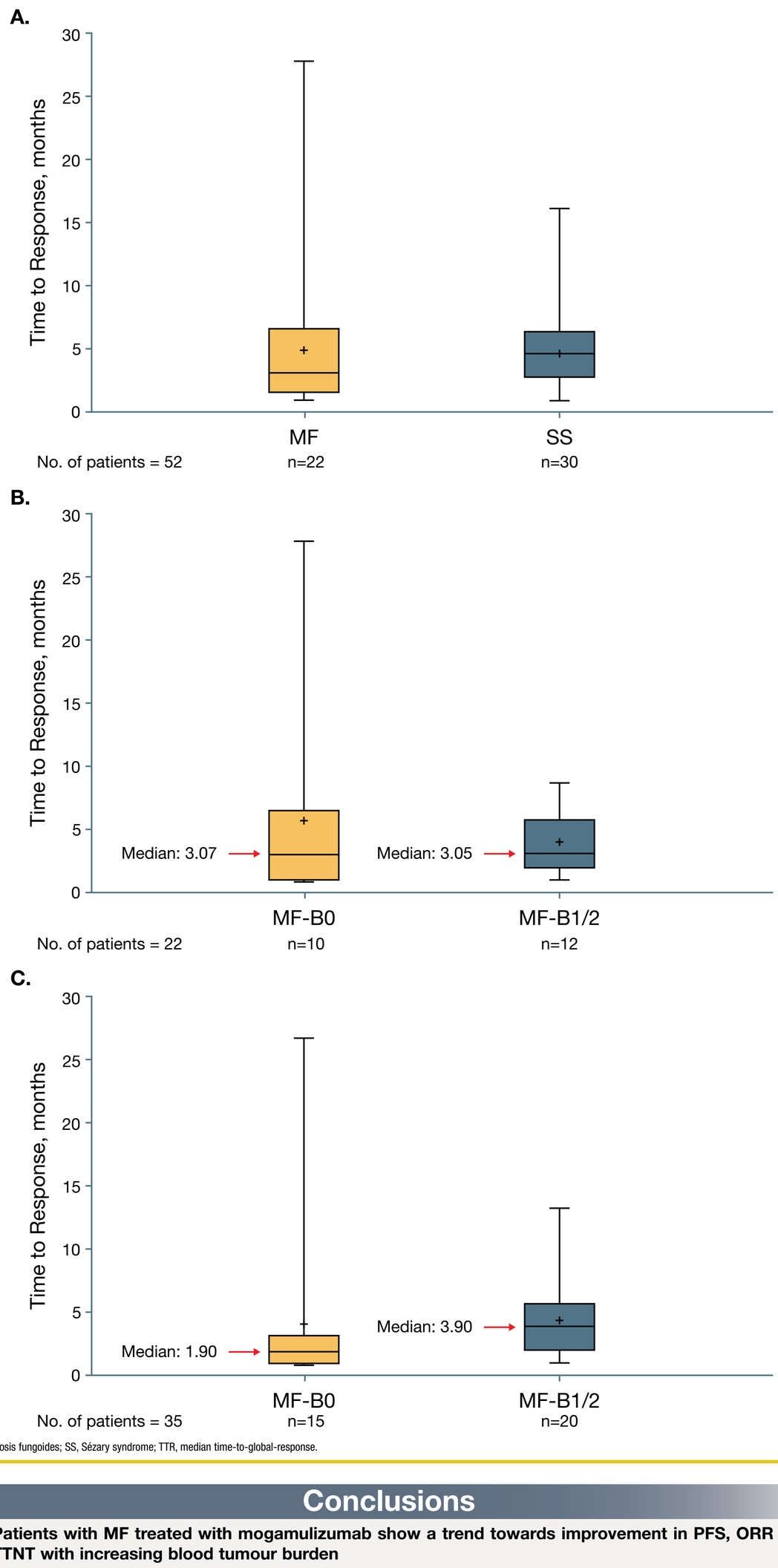
Figure 1. A) Efficacy analyses for a) ORR, B) PFS and C) TTNT by Investigator's Assessment in patients with MF by baseline blood classification



CI, confidence interval; CR, complete response; HR, hazard ratio; MF, mycosis fungoides; Moga, mogamulizumab; ORR, global overall response rate; PFS, progression-free survival; PR, partial response; TTNT, time-to-next treatment; Vori, vorinostat.
[a]N numbers are No. pts with global response (CR + PR) / No. MF pts with B-class at baseline
[b]N numbers are No. pts evaluable for endpoint / No. MF pts with B-class at baseline

- TTR analysis in patients treated with mogamulizumab showed a more variable range of values for MF compared to SS; (standard deviation [SD]: 5.774 vs. 3.171 months; range: 0.9–27.8 vs. 0.9–16.2 months) (**Figure 2a**)
- In MF patients without blood involvement, TTR was more varied compared to patients with blood involvement (SD: 5.774 vs. 3.171 months; range: 0.9–27.8 vs. 0.9–16.2 months) and half of patients (irrespective of blood involvement) achieved a global response after 3 months (**Figure 2b**)
- Median time-to-skin-response in MF patients took longer in those patients with blood involvement as compared to those without (3.9 vs. 1.9 months), and half of them achieved a skin response after 3.9 months (**Figure 2c**)

Figure 2. A) Boxplot for TTR with mogamulizumab by disease subtype (MF vs. SS) by Investigator's Assessment; B) Boxplot of TTR with mogamulizumab in MF patients by patient baseline blood involvement; C) Boxplot of time-to-skin-response with mogamulizumab in MF patients by baseline blood involvement.



MF, mycosis fungoides; SS, Sézary syndrome; TTR, median time-to-global-response.

Conclusions

- **Patients with MF treated with mogamulizumab show a trend towards improvement in PFS, ORR and TTNT with increasing blood tumour burden**
- **Statistically significant improvement is seen for patients with MF with baseline blood involvement classifications of B1 and B2, when treated by mogamulizumab compared with vorinostat**
- **TTR with mogamulizumab may be more variable in patients with MF, compared to SS**
- **In MF patients with blood involvement treated with mogamulizumab – the patients that derived the most benefit in this analysis – around half of patients that achieved global and skin responses had times-to-response of greater than 3 and 4 months, respectively**

References

1. Scarisbrick J, et al. Efficacy and Safety of Mogamulizumab by Patient Blood Classification. Presented at the 16th EADO Congress, 12–14 October 2020, Virtual
2. Agar 2010, Am Soc J Clin Oncol

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