**BACKGROUND**

Approximately 10% of patients with acute myeloid leukemia (AML) harbor mutations in isocitrate dehydrogenase-2 (IDH2) genes. Enasidenib produces the concomitant IDH2-R132H, causing DNA and RNA hypermethylation and leading to blocked differentiation of leukemic cells.

**RESULTS**

| Table 1. Baseline Demographic and Disease Characteristics |
|---------------------------------|-----|-----|-----|
| Patients who later attained a hematologic response at any time after day 90 (“SD Late Responders”) | n (%) | n=23 | n=37 | n=21 |
| Age, years | median (range) | 68 (18–84) | 67 (18–82) | 70 (18–79) |
| Gender | male/female | 46/54 | 52/48 | 52/48 |
| WHO ANLL classification, % | | | | |
| AML | 12 (50) | 20 (50) | 7 (28) |
| MDS | 2 (8) | 4 (10) | 4 (16) |
| MDS, EV | 1 (4) | 2 (5) | 2 (9) |
| MDS, EV/RAEB | 5 (21) | 12 (32) | 6 (29) |
| MDS, RAEB | 1 (4) | 2 (5) | 2 (9) |
| MDS, RAEB-T | 11 (48) | 17 (46) | 10 (48) |
| MDS, RC | 3 (13) | 9 (23) | 10 (48) |
| Binet stage | | | |
| Stage A | 6 (26) | 8 (22) | 4 (19) |
| Stage B | 8 (32) | 9 (23) | 9 (43) |
| Stage C | 9 (39) | 17 (46) | 8 (38) |

**CONCLUSIONS**

- SD may represent more controlled proliferation of leukemic blasts and slower differentiation of cells, thus leading to a later relapse.
- In the first 90 days of treatment with enasidenib 100 mg, daily, 42% of patients with IDH2 RELA ANLL maintained SD, of them, 14% responded after day 90, with median times to first and best responses of 4 and 5 months from treatment initiation.
- Among SD patients, those responding after day 90 had a significantly better OS compared with those with SD only (HR 0.39 [95% CI 0.18, 0.85]).
- In univariate analyses, no baseline variable included in Table 1 was significantly predictive of future response to enasidenib among all patients.

**DISCLOSURES**

- ENMs: consultancy, research funding, Agios Pharmaceuticals, Inc., Novartis, consultancy, travel and equity ownership, Celgene Corporation.
- CA: research funding, Agios Pharmaceuticals, Inc., honoraria, Novartis.
- JVO: consultancy and honoraria, Celgene Corporation, Novartis.
- FT, LL, and AG: employment and equity ownership, Agios Pharmaceuticals, Inc.
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**REFERENCES**


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**CORRESPONDENCE**

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**METHODS**

- In the SD Only cohort, risk of death was significantly reduced by 57% vs the PD After Day 90 cohort (Figure 4).
- In the SD Only cohort, median treatment duration was 173 days (range 99–361) and median OS was 8.8 months (95% CI 7.7, 11.6) (Figure 4).
- In the SD Late Responders cohort, median treatment duration was 107 days (range 66–218) and median OS was 6.9 months (95% CI 4.7, 9.8) (Figure 4).

**OBJECTIVES**

- Assess response and survival outcomes for patients with m.i. 9R-ANLL, who maintained SD during early enasidenib treatment in the phase 1/2 AG221-1-C01 study.

**RESULTS**

- In multivariate analyses, best baseline variable included in Table 1 was significantly predictive of future response to enasidenib among all patients.

**CONCLUSIONS**

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