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POSTER ABSTRACTS

615.ACUTE MYELOID LEUKEMIAS: COMMERCIALLY AVAILABLE THERAPIES, EXCLUDING TRANSPLANTATION AND CELLULAR IMMUNOTHERAPIES

Gemtuzumab Ozogamicin for Patients with Newly Diagnosed CD33 Positive Acute Myeloid Leukemia: Results from a French Retrospective Observational Study

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Introduction: Gemtuzumab ozogamicin (GO) is an antibody-drug conjugate targeting CD33 with a calicheamicin derivative payload. GO is approved in France in combination with daunorubicin and cytarabine for treatment-naïve patients aged ≥15 years with de novo CD33-positive acute myeloid leukemia (AML). Before the European Medicines Agency granted marketing authorization in 2018, GO was available in France with an authorization for temporary use (ATU) for specific patients since 2010, and between 2018 and 2019 as part of a "post-ATU" cohort until its reimbursement. This study aimed to describe the real-world use, effectiveness, and safety of GO in treatment-naïve patients with CD33-positive AML in France, as requested by the French Transparency Commission.
Methods: This retrospective, multicenter, observational study included all patients in the French ATU and post-ATU cohorts treated between 01 December 2014 and 31 October 2022. Patient and disease characteristics, treatment (dose/combination), response outcomes, and adverse events (AEs) of interest were described. Prognostic factors for event-free survival (EFS), relapse-free survival (RFS), and overall survival (OS) were identified using Cox proportional hazard models.
Results: Overall, 113 patients were included (ATU cohort, N=62; post-ATU cohort, N=51). The median age when GO was initiated was 63.0 years (range, 19-91); 54.9% (n=62) of patients were male; 81.8% (n=72/88) had an ECOG performance score 0-1, and 65.3% (n=64/98) had favorable risk according to the ELN classification 2017 (**Table**). During the first induction treatment, most patients (98.1%; n=105/107) received GO in association with other agents, most commonly cytarabine and daunorubicin (60.0%; n=63/105). Most patients (78.5%, n=84/107) received 3 doses of GO during first induction. In all cases, patients received GO in second (7.1%; n=8) or subsequent (2.7%; n=3) induction courses - always in association with cytarabine and with or without daunorubicin/other agents. GO was given during the first, second, and subsequent consolidation treatment in 46.9% (n=53), 32.7% (n=37), and 2.7% (n=3) of patients, respectively, usually with cytarabine with or without daunorubicin. After a median follow-up of 44.6 months (95% CI, 33.8-69.3), 78.6% (n=88/112) of patients responded post-induction - of these, 72.3% (n=81) achieved a complete response (CR) and 6.3% (n=7) achieved a CR without platelet recovery. Minimal residual disease was evaluable in 46 patients; 52.2% (n=24) achieved a CR without minimal residual disease. Median EFS was 13.1 months (95% CI, 9.9-17.5); EFS by ELN risk group is shown in the **Table**. Median RFS was 17.5 months (95% CI, 12.6-35.6) and median OS was 49.8 months (95% CI, 21.8-not estimable; **Figure**). After a median period of 13.0 months (range, 3.0-33.0) following GO treatment, 31.5% (n=35/111) of patients received a hematopoietic stem cell transplant.
Older age predicted shorter OS (hazard ratio [HR] 1.1 [95% CI, 1.0-1.1]; p<0.001). Having an *FLT3TKD* mutation (HR 4.1 [95% CI, 1.4-12.4]; p=0.013) or adverse cytogenetic classification (HR 13.0 [95% CI, 2.3-73.8]; p=0.015) predicted shorter EFS. Having ECOG-PS ≥2 (HR 6.6 [95% CI, 1.8-24.5]; p=0.005) or adverse cytogenetic classification (HR 72.7 [95% CI, 7.6-699.1]; p=0.001) predicted shorter RFS.
AEs of interest were reported for 38.9% (n=44) of patients; 13.3% (n=15) were serious and 26.6% (n=30) were treatment-related (TRAE). The most common AEs were thrombocytopenia (21.2%; n=24), pyrexia (4.4%; n=5), and hepatic cytolysis

(3.5%; n=4). AEs of special interest included persistent thrombocytopenia (15.9%; n=18), severe hemorrhage (5.3%; n=6), and veno-occlusive disease/sinusoidal obstruction syndrome (0.9%; n=1). Overall, 46.9% (n=53) patients died, with relapse or progressive disease accounting for 41.5% of deaths (n=22/53). Two (1.8%) patients died from TRAEs (laryngeal edema/pulmonary alveolar hemorrhage and hepatic cytolysis).

Conclusions: GO was predominantly administered according to its indication. Response rates were similar to those reported in the pivotal ALFA-0701 study. Median OS was longer in this study than in ALFA-0701 (49.8 vs 27.5 months), although median RFS and EFS were reduced. No new safety signals were reported. Overall, GO appears safe and effective in real-world practice when added to induction therapy for treating patients with de novo CD33-positive AML.

Disclosures Lambert: *AbbVie:* Honoraria; *Bristol Meyers Squibb:* Honoraria; *Gilead:* Honoraria; *Jazz Pharmaceuticals:* Honoraria; *Pfizer, Inc.:* Honoraria. **Raffoux:** *Celgene:* Honoraria; *AbbVie:* Honoraria; *Daiichi-Sankyo:* Honoraria; *Astellas:* Honoraria; *Pfizer, Inc.:* Honoraria. **Heiblig:** *Jazz Pharmaceuticals:* Honoraria; *AbbVie:* Honoraria; *Pfizer Inc.:* Honoraria; *Astellas:* Honoraria; *Servier:* Honoraria. **Gogat-Marchant:** *Pfizer Inc:* Current Employment, Current equity holder in private company. **Pautas:** *Bristol Meyers Squibb:* Honoraria; *AbbVie:* Honoraria.

Table: EFS by risk according to ELN classification 2017

	Risk according to ELN classification 2017 (N=98)		
	Favorable (n=64, 65.3%)	Intermediate (n=10, 10.2%)	Adverse (n=15, 15.3%)
EFS, median (95% CI), months	15.4 (9.9–28.8)	9.7 (0.6–13.9)	4.0 (0.7–16.5)

Figure: Kaplan–Meier curve of overall survival (N=113)

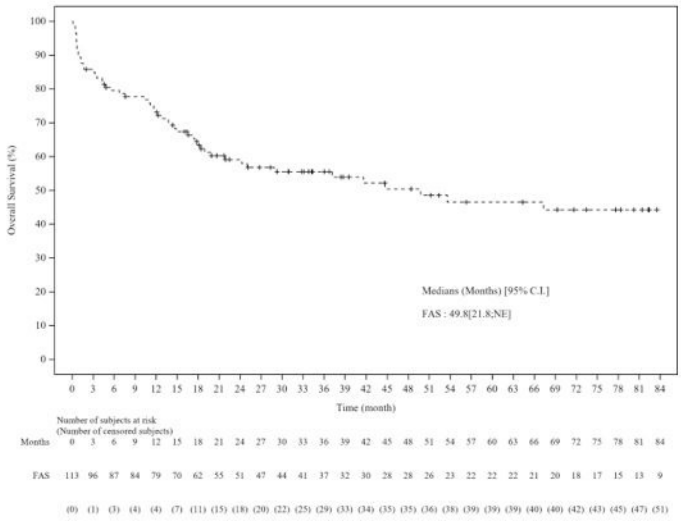

Figure 1

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