SOHO ANNUAL MEETING 2024

Pooled Fecal Allogeneic Microbiotherapy for Refractory Gastrointestinal Acute Graft-Versus-Host Disease (aGvHD) : Results from the Early Access Program in Europe

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Poster #CT198

INTRODUCTION

While the recent optimization of Graft-versus-Host Disease (GvHD) prophylaxis protocols has decreased the incidence of severe GvHD, GvHD remains a major source of mortality following allogenic hematopoietic cell transplantation (allo-HCT) with an important unmet medical need, especially after failure to respond to corticosteroids and ruxolitinib.

Fecal microbiotherapies are reported to be safe in immunocompromised patients and have shown promising results in refractory-GI-GVHD.

MaaT013 is a pooled allogenic fecal Microbiome Ecosystem Therapy administered as enema, aiming at improving microbial diversity, richness and functionality and leading to GI symptoms resolution.

Here we report clinical outcomes from a 140-patient cohort with refractory gastrointestinal acute GvHD treated with MaaT013 within an early access program (EAP) in Europe.

METHODS

01 Characteristics

Pooled microbiota: high-richness, high-diversity, full ecosystem, (10^{11} CFU/bag) containing Butycore®

02 Treatment protocol

3 doses within 2 weeks (150 mL enema bag for direct colonic delivery)

03 Efficacy evaluation (GI response at Day 28)

Proportion of patient achieving a GI complete response (CR), Very Good Partial Response (VGPR), or Partial Response (PR) compared to Day 0

EAP ONGOING IN EUROPE

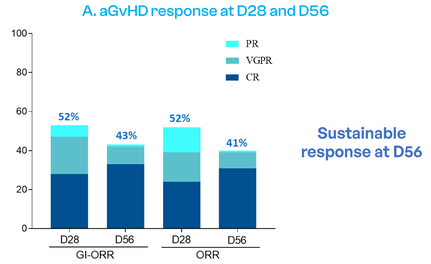
Main inclusion criteria

- Steroid refractory / dependent
- Acute GVHD with gut involvement, grade II to IV
- Any line of treatment
- MaaT013 used as a monotherapy and/or combination therapy
- ≥ 12 hours discontinuation of systemic antibiotics surrounding MaaT013 administration
- Patient not eligible to ARES trial - NCT04769895

PATIENTS' CHARACTERISTICS (N=140)

Gender, n (%)	Male	77 (55%)
	Female	63 (45%)
Age at first MaaT013 administration (years)	Median (range)	58 (12-74)
Disease	Acute myeloid leukemia	55 (39%)
	Myelodysplastic syndrome	26 (19%)
	Myeloproliferative syndrome	17 (12%)
	Lymphoma	15 (11%)
	Acute lymphoblastic leukemia	15 (11%)
	Other	12 (9%)
Steroid status	**Steroid refractory-aGvHD**	**115 (82%)**
	Steroid dependent-aGvHD	25 (18%)
Type of aGvHD	Classical	86 (61%)
	Late onset	13 (9%)
	Hyper-acute	20 (14%)
	Overlap syndrome / chronic	21 (15%)
GvHD grading (MAGIC), n (%)	I	0
	II	16 (11%)
	III	**68 (49%)**
	IV	**56 (40%)**
GvHD organ involvement at EAP inclusion	GI only	84 (60%)
	GI + skin	34 (24%)
	GI + liver	8 (6%)
	GI + skin + liver	6 (4%)
	Missing data for skin and liver	8 (6%)
Number of previous lines of treatment, n	Median (range)	3 (1-6)
Number of MaaT013 doses administered	Median (range)	3 (1-6)

GLOBAL EAP POPULATION (N=140)



Sustainable response at D56

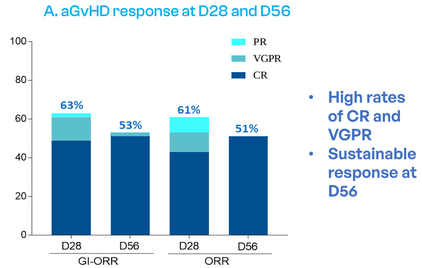
Fig. 1 : Patients' response and outcomes after MaaT013 treatment (n=140)

A. Gastrointestinal overall response rate and Overall Response rate in all organs at Day 28 and Day 56 (D28 and D56)

B. Overall survival in all patients and according to MaaT013 response (responders being patients who achieved at least a PR at day 28)

CR: complete response; VGPR: very good partial response; PR: partial response; Mo: months

FOCUS ON STEROIDS (1L) AND RUXOLITINIB-REFRACTORY (2L) PATIENTS (N=49)



- High rates of CR and VGPR
- Sustainable response at D56

Fig. 2 : Patients' response and outcomes treated with MaaT013 treatment as 3rd line (n=49)

A. Gastrointestinal overall response rate and Overall Response rate in all organs at Day 28 and Day 56 (D28 and D56)

B. Overall survival in all patients and according to MaaT013 response (responders being patients who achieved at least a PR at day 28)

CR: complete response; VGPR: very good partial response; PR: partial response; Mo: months

Clinical response to MaaT013 translates to increased overall survival

GOOD TOLERABILITY AND SAFETY PROFILE

Overall safety is very good compared to historical data in such heavily pre-treated and fragile population. Two paediatric patients (aged 12 and 15) treated with MaaT013: well tolerated (no AE) and good efficacy. 35 pharmacovigilance cases reported in 33 patients. Among them, 22 cases possibly related to MaaT013 by the physician or the company, including 10 bacteremia and 6 sepsis . 70 deaths reported: GvHD in 28, severe infection in 24, relapse in 11, hemorrhage in 2, neurological complications post allo-HCT in 1, respiratory distress in 1, cardiac arrest in 2 and unknown cause for 1 patient. No causality link with MaaT013 administration has been identified. No pathogen transmission was reported. In 2 patients, non-pathogenic commensal bacteria isolated following infectious events were detected in the administered MaaT013. Causality could not be formally excluded in these cases.

CONCLUSION

- Treatment of 140 SR-GI-aGvHD patients with MaaT013 is safe and translates into a high and sustainable response rate : D28 GI-ORR 52%
- The benefit on GI response positively and significantly impacted OS in responder patients.
- MaaT013 used as 3rd line treatment after CS and ruxolitinib failure is even more promising with 63% GI-ORR at D28 and 52% OS at 1 year
- A Phase 3 trial is currently ongoing to confirm these results in ruxolitinib-refractory patients (NCT04769895).

CONTACT

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