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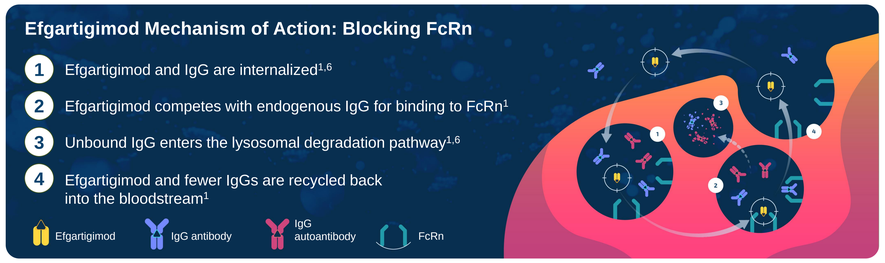
Effect of Intravenous and Subcutaneous Efgartigimod on MG-ADL and QMG Subdomains in the ADAPT-SC Study in Participants With Generalized Myasthenia Gravis

Sophie Steeland,[1] Jan L. De Bleecker,[2] Kristin Heerlein,[1] Jeffrey Guptill,[1] Dustin Nowacek,[1] Sihui Zhao,[1] Yuebing Li,[3] and the ADAPT-SC Study Group

[1]argenx, Ghent, Belgium; [2]Ghent University Hospital, Ghent, Belgium; [3]Cleveland Clinic, Cleveland, Ohio, USA

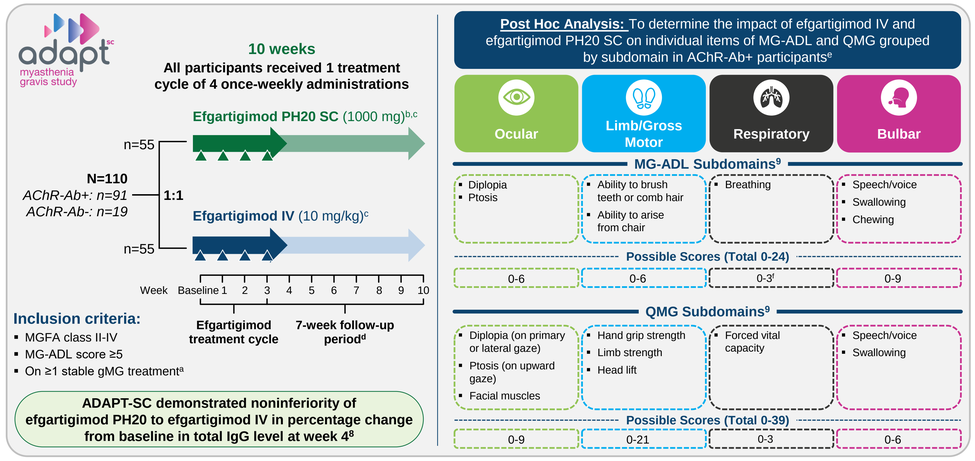
INTRODUCTION

- Efgartigimod is an IgG1 antibody Fc fragment that has been engineered for increased affinity to FcRn compared with endogenous IgG and is uniquely composed of the only part of the IgG antibody that normally binds FcRn[1]
- Efgartigimod selectively reduces IgG by blocking FcRn-mediated IgG recycling without impacting antibody production or other parts of the immune system, and does not decrease albumin[1-3]
- Efgartigimod PH20 SC is a coformulation of efgartigimod and recombinant human hyaluronidase PH20 (rHuPH20), which allows for rapid SC administration of larger volumes[4,5]



- As some treatments may have differential effects on individual muscle group subdomains involved in the symptomatology of gMG[7], this post-hoc analysis evaluated the relative contributions of each subdomain to overall total MG-ADL and QMG scores in efgartigimod-treated participants during the ADAPT-SC study

METHODS



[a]AChEIs, steroids, and/or NSISTs. [b]Coformulated with 2000 U/mL rHuPH20. [c]Triangles indicate efgartigimod administration. [d]Participants did not receive efgartigimod treatment in the 7-week follow-up period. [e]Includes participants with a baseline score of >0 (participants with no involvement in a particular subdomain cannot show improvement in that subdomain). [f]ADAPT-SC excluded participants requiring ventilatory assistance and intubation (MGFA class V), so the maximum possible score in the MG-ADL respiratory subdomain during the ADAPT-SC study was 2 points.

SUMMARY

- **Both arms exhibited similar improvements in individual MG-ADL and QMG subdomains with no significant differences between efgartigimod PH20 SC and efgartigimod IV in participants with AChR-Ab+ gMG at Week 4 (time of maximal IgG reduction)**
- **These data suggest that efgartigimod (PH20 SC or IV) can improve function of all muscle groups (ocular, limb/gross motor, respiratory and bulbar muscle) affected in patients with gMG**
- **These results are consistent with a previous study in which efgartigimod IV significantly improved function and strength across all MG-ADL and QMG muscle group subdomains, relative to placebo[9]**
- **Safety and tolerability of efgartigimod PH20 SC was similar to efgartigimod IV, except for injection-site reactions which were all mild to moderate in severity and did not lead to treatment discontinuation**

RESULTS

Table 1. Participant Demographics and Baseline Characteristics
AChR-Ab+ Population

	Efgartigimod PH20 SC (n=45)	Efgartigimod IV (n=46)
Age, y, mean (SD)	51.3 (16.3)	57.0 (14.8)
Sex, female, n (%)	25 (55.6)	26 (56.5)
Weight, kg, median (min, max)	76.9 (42.0, 115.4)	81.7 (46.9, 139.3)
Time since diagnosis, y, mean (SD)	6.7 (6.7)	7.9 (8.9)
Total MG-ADL score, mean (SD)	8.6 (2.6)	8.3 (2.5)
Total QMG score, mean (SD)	14.4 (4.4)	15.1 (4.3)
MGFA class at screening, n (%)		
Class II	25 (55.6)	17 (37.0)
Class III	19 (42.2)	27 (58.7)
Class IV	1 (2.2)	2 (4.3)
Concomitant MG therapy, n (%)		
Any steroid	34 (75.6)	29 (63.0)
Any NSIST	18 (40.0)	19 (41.3)
Any AChEI	39 (86.7)	39 (84.8)
Steroid + NSIST	16 (35.6)	13 (28.3)
AChEI only	9 (20.0)	10 (21.7)

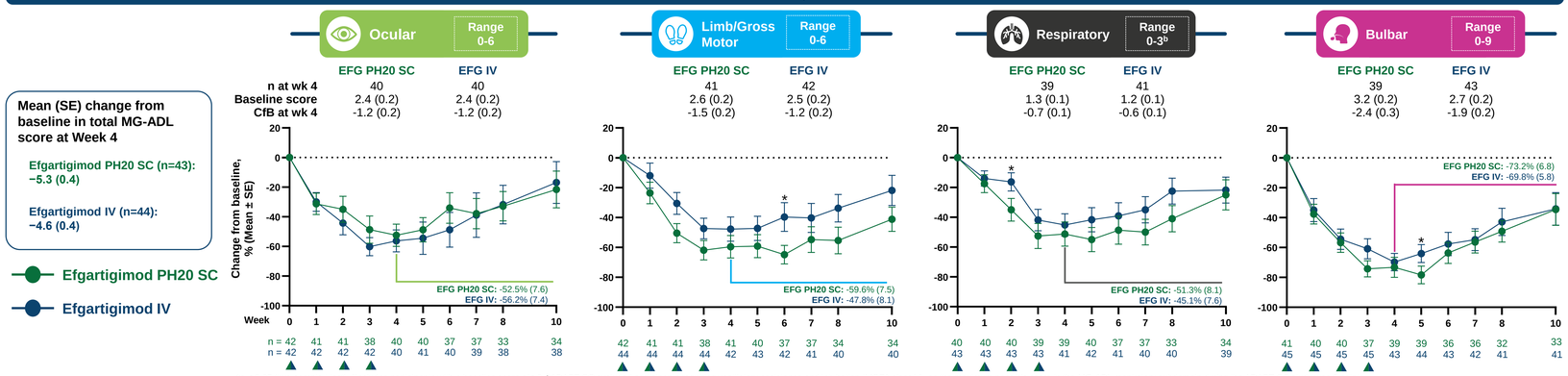
Table 2. Overview of Adverse Events
Safety Analysis Set

	Efgartigimod PH20 SC (n=55) 10.73 PYFU		Efgartigimod IV (n=55) 10.53 PYFU	
	ER[a]	n (%)	ER[a]	n (%)
TEAE	12.4	37 (67.3)	7.6	28 (50.9)
Serious TEAE	0.9	8 (14.5)	0.5	4 (7.3)
Grade ≥3 TEAE	1.0	9 (16.4)	0.5	4 (7.3)
Any infection	0.9	10 (18.2)	0.9	9 (16.4)
Discontinued study treatment due to TEAE	0.2	2 (3.6)[b]	-	0 (0)
Most frequent TEAEs[c]				
Headache	0.9	7 (12.7)	1.0	7 (12.7)
Injection site rash	1.3	8 (14.5)	-	0 (0)
Myasthenia gravis worsening	0.7	6 (10.9)	0.2	1 (1.8)
Injection site erythema	0.7	7 (12.7)	-	0 (0)

[a]Event rate was calculated as number of events per total PYFU. [b]One treatment discontinuation due to COVID-19 infection on Day 3 and the other due to MG worsening on Day 1. [c]Occurring in >10% of participants.

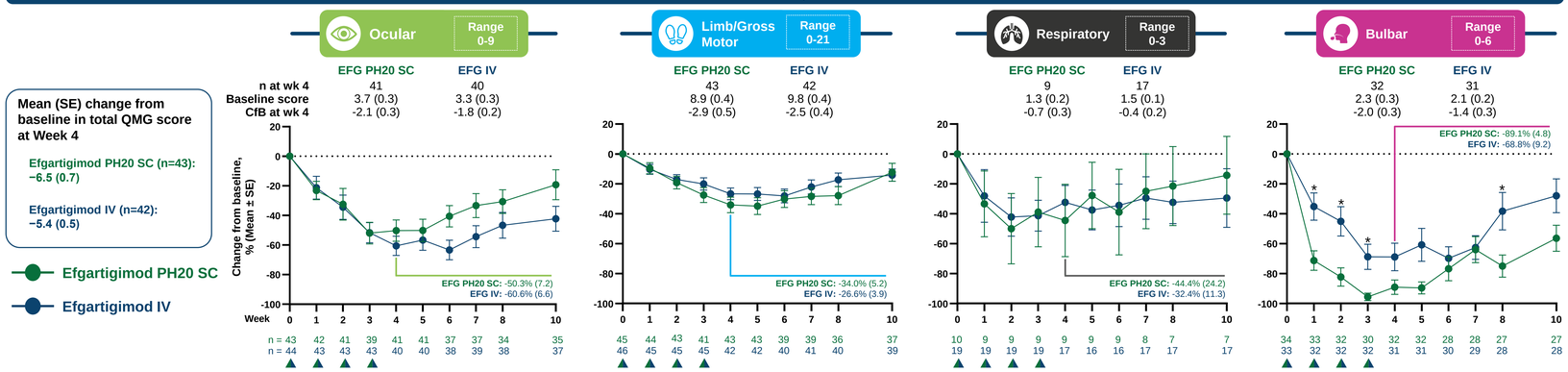
- Efgartigimod was generally well tolerated
- Injection-site reactions to efgartigimod PH20 SC were mild (18/21 participants) or moderate (3/21 participants), and most (19/21 participants) were transient and resolved without treatment
- Worsening of gMG symptoms typically happened at the end of the follow-up period. All participants who rolled over to the open-label extension had clinically meaningful improvement in MG-ADL when they received efgartigimod again

Figure 1. Percentage Change from Baseline in MG-ADL Subdomains[a]
AChR-Ab+ Population



*p < 0.05 (two-sample t test). [a]Includes participants with a baseline score of >0. [b]ADAPT-SC excluded participants requiring ventilatory assistance and intubation (MGFA class V), so the maximum possible score in the MG-ADL respiratory subdomain during the ADAPT-SC study was 2 points.

Figure 2. Percentage Change from Baseline in QMG Subdomains
AChR-Ab+ Population



*p < 0.05 (two-sample t test).

ABBREVIATIONS
AChEI, acetylcholinesterase inhibitor; AChR-Ab, acetylcholine receptor antibody; AE, adverse event; COVID-19, coronavirus disease 2019; EFG, efgartigimod; ER, event rate; Fc, fragment crystallizable region; FcRn, neonatal Fc receptor; gMG, generalized myasthenia gravis; Ig, immunoglobulin; IV, intravenous; MG, myasthenia gravis; MG-ADL, Myasthenia Gravis Activities of Daily Living; MGFA, Myasthenia Gravis Foundation of America; NSIST, nonsteroidal immunosuppressive therapy; PYFU, participant years of follow-up (sum of follow-up time of all participants expressed in years in the applicable period); QMG, Quantitative Myasthenia Gravis rHuPH20, recombinant human hyaluronidase PH20; SAE, serious adverse event; SC, subcutaneous.

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