Poster #131

Pharmacodynamic Noninferiority Study Comparing Subcutaneous Efgartigimod PH20 With Intravenous Efgartigimod: Results of Phase 3 ADAPTsc Study



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INTRODUCTION

• Efgartigimod demonstrated clinical improvement in patients with gMG by blocking FcRn and decreasing IgG, including pathogenic IgG autoantibody levels^{1,2}

Efgartigimod Mechanism of Action: Blocking FcRn

- FcRn recycles IgG, extending its half-life and maintaining serum concentration³
- Efgartigimod is a human IgG1 Fc fragment, a natural ligand of FcRn, engineered for increased affinity to FcRn⁴
- Efgartigimod was designed to outcompete endogenous IgG, preventing recycling and promoting IgG lysosomal degradation without directly impacting its production^{2,4–7}
- Targeted reduction of all IgG subtypes
- No impact on IgM or IgA
- No reduction in albumin levels



Open-label extension: ADAPT^{sc}

• 105 patients rolled over to the

• All patients receive efgartigimod

• Time between treatment cycles

was \geq 28 days and based on the

determined by the investigator

open-label extension

need for treatment as

PH20 SC

Ongoing

† Day 29

SUMMARY



The primary endpoint was met for noninferiority of efgartigimod PH20 SC 1000 mg to IV 10 mg/kg in terms of percent reduction from baseline in total IgG levels at Day 29, ie, 7 days after the fourth SC or IV administration



≥10

≥9

≥7

≥6

≥5

>4

>3

>2

0 (no change)

Worseneo

Safety and tolerability of efgartigimod PH20 SC was similar to efgartigimod IV, with the exception of injection-site reactions, which were all mild-to-moderate in severity and did not lead to treatment discontinuation

Similar Effects Across the Multiple Efficacy Endpoints Were Reported for Both **Efgartigimod PH20 SC and Efgartigimod IV**

MG-ADL Total Score Change from Baseline Over Time (overall and AChR-Ab+ populations)

QMG Total Score Change from Baseline Over Time (overall and AChR-Ab+ populations)

- No increase in cholesterol
- No impact on IgG production

OBJECTIVES AND METHODS

ADAPTsc Study Design

• ADAPTsc (NCT04735432) was a phase 3, randomized, open-label, parallel-group, multicenter, noninferiority study that compared the pharmacodynamics, pharmacokinetics, efficacy, safety, tolerability, and immunogenicity of efgartigimod PH20 subcutaneous (SC; coformulated with recombinant human hyaluronidase PH20) with efgartigimod intravenous (IV) in patients with gMG^{*}

Phase 3, randomized trial: ADAPT⁵

4 5 6 7 8

All patients receive 1 treatment cycle

(4 x weekly administrations)

Follow-up period[‡]

Efgartigimod PH20 SC

 $(1000 \text{ mg})^{t}$

(10 mg/kg)

Treatment period

Efgartigimod IV

• Primary endpoint: total IgG (%) reduction between efgartigimod PH20 SC and efgartigimod IV at day 29 based on a noninferiority margin of 10% in participants with gMG



• Inclusion criteria:

RESULTS

- Myasthenia Gravis Foundation of America class II–IV
- MG-ADL score ≥5
- − On \geq 1 stable gMG treatment^a
- Skin fit for injection

All patients randomized 1:1

^aAcetylcholinesterase inhibitors, steroids, and/or NSIST. ^bCoformulated with 2000 U/mL rHuPH20. ‡Patients could not receive treatment in the 7 week follow-up period.







100%

75%

50%

25%

0%

75% 50% 25% 0% 25% 50% 75% 100% 100%

Baseline Patient Characteristics

Scores above dashed line indicate clinically meaningful improvement. Mini	nimum improvements 1 week after the last infusion of cycle 1 (week
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	Efgartigimod PH20 SC (n=55)	Efgartigimod IV (n=55)
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IGFA class at screening, n (%)		
Class II	29 (52.7)	22 (40.0)
Class III	24 (43.6)	30 (54.5)
Class IV	2 (3.6)	3 (5.5)
revious thymectomy, n (%)	16 (29.1)	13 (23.6)
ChR-Ab+ , n (%)	45 (81.8)	46 (83.6)
otal MG-ADL score, mean (SD)	8.8 (2.6)	8.5 (2.6)
otal QMG score, mean (SD)	14.9 (4.4)	15.5 (4.5)
Iyasthenia gravis therapies at baseline, n (%)		
Any steroid	40 (72.7)	33 (60.0)
Any NSIST ^a	23 (41.8)	25 (45.5)
Any AChEI	48 (87.3)	47 (85.5)
Steroid and NSIST ^a	19 (34.5)	16 (29.1)
AChEI only	11 (20.0)	12 (21.8)

^aPatients may have also been receiving an AChEI. NSIST: azathioprine, cyclosporine, cyclophosphamide, methotrexate, mycophenolate, tacrolimus (in mono- or combination therapy)

Primary Endpoint of Noninferiority Between Efgartigimod PH20 SC and **Efgartigimod IV in Total IgG (%) Reduction at Day 29 Was Met**

Change (%) from Baseline in Total IgG Levels at Day 29 (primary endpoint; overall and AChR-Ab+ populations) Change (%) from Baseline Over Time in Total IgG Level (overall and AChR-Ab+ populations)





25%

argenx

50%

75%

Scores above dashed line indicate clinically meaningful improvement. Minimum improvements 1 week after the last infusion of cycle 1 (week 4).

Summary of Adverse Events

	Efgartigimod PH20 SC (n=55)	Efgartigimod IV (n=55)
Any AE , n (%)	37 (67.3)	28 (50.9)
Any AE Grade ≥ 3 , n (%)	9 (16.4)	4 (7.3)
Any SAE , n (%)	8 (14.5)	4 (7.3)
≥1 injection-site reaction (localized), n (%)	21 (38.2)	1 (1.8) ^a
Any infection, n (%)	10 (18.2)	9 (16.4)
Discontinued study treatment due to AEs, n (%)	2 (3.6) ^b	0 (0.0)
Most frequent AEs occurring in ≥5 patients, n (%)		
Injection site rash	8 (14.5)	0 (0)
Headache	7 (12.7)	7 (12.7)
Injection site erythema	7 (12.7)	0 (0)
Myasthenia gravis worsening	6 (10.9)	1 (1.8)
Injection site pruritus	5 (9.1)	0 (0)
Fatigue	2 (3.6)	3 (5.5)



No Grade 5 or 4 AEs reported. ^aNo preferred term AEs of injection-site reaction recorded. This AE was incorrectly coded (should have been catheter site reaction). ^b1 treatment discontinuation due to COVID-19 infection on Day 3 and the other due to MG worsening on Day 1.

Efgartigimod was generally well tolerated

• Injection-site reactions were mild (18/21 patients) or moderate (3/21 patients) and most (19/21 patients) were transient and resolved without treatment

• Worsening of gMG symptoms typically happened at the end of the follow-up period. All patients who rolled over to the open-label extension had clinically meaningful improvement in MG-ADL when they received efgartigimod again

ABBREVIATIONS: AChEI, acetylcholinesterase inhibitor; AChR-Ab, acetylcholine receptor antibody; AE, adverse event; EFG, efgartigimod; FcRn, neonatal Fc receptor; gMG, generalized myasthenia gravis; IgG, immunoglobulin G; IV, intravenous; MG-ADL, Myasthenia Gravis Activities of Daily Living; MGFA, Myasthenia Gravis Foundation of America; NSIST, nonsteroidal immunosuppressive therapy; PH20, recombinant human hyaluronidase PH20; QMG, Quantitative Myasthenia Gravis; SAE, serious adverse event; SC, subcutaneous; SE, standard error.

REFERENCES: 1. Howard JF Jr, et al. Neurology. 2019;92:e2661–73. 2. Howard JF Jr, et al. Lancet Neurol. 2021;20:526–36. 3. Sesarman A, et al. Cell Mol Life Sci. 2010;67:2533–50. 4. Ulrichts P, et al. J Clin Invest. 2018;128:4372–86. 5. Vaccaro C, et al. Nat Biotech. 2005;23:1283–88. 6. Nixon AE, et al. Front Immunol. 2015;6:176. 7. Ward ES, et al. Front Immunol. 2022;13:892534. 8. ADAPTsc (NCT04735432), available at: https://clinicaltrials.gov/ct2/show/NCT04735432. Accessed July 29, 2022.

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Efgartigimod Mechanism of Action: Blocking FcRn

- FcRn recycles IgG, extending its half-life and maintaining serum concentration³
- Efgartigimod is a human IgG1 Fc fragment, a natural ligand of FcRn, engineered for increased affinity to FcRn⁴



- Efgartigimod was designed to outcompete endogenous IgG, preventing recycling and promoting IgG lysosomal degradation without directly impacting its production^{2,4–7}
 - Targeted reduction of all IgG subtypes
 - No impact on IgM or IgA
 - No reduction in albumin levels
 - No increase in cholesterol
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OBJECTIVES AND METHODS

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- Primary endpoint: total IgG (%) reduction between efgartigimod PH20 SC and efgartigimod IV at day 29 based on a noninferiority margin of 10% in participants with gMG



- Inclusion criteria:
 - Myasthenia Gravis Foundation of America class II–IV
 - MG-ADL score ≥5
 - On ≥1 stable gMG treatment^a
 - Skin fit for injection



All patients receive 1 treatment cycle

(4 x weekly administrations)

Open-label extension: ADAPT^{SC+}

- 105 patients rolled over to the open-label extension
- All patients receive efgartigimod PH20 SC
- Time between treatment cycles was ≥28 days and based on the need for treatment as determined by the investigator
- Ongoing
- ★ Day 29

*Acetylcholinesterase inhibitors, steroids, and/or NSIST. ^bCoformulated with 2000 U/mL rHuPH20. ‡Patients could not receive treatment in the 7 week follow-up period.



Baseline Patient Characteristics

Efgartigimod PH20 SC (n=55)

Efgartigimod IV (n=55)

Age, mean (SD) years	50.9 (15.8)	55.8 (15.4)
Female , n (%)	31 (56.4)	34 (61.8)
Weight, median (min, max) kg	78.3 (42.0, 150.2)	78.0 (45.0, 139.3)
Time since diagnosis, mean (SD) years	6.3 (6.4)	7.7 (8.5)
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Primary Endpoint of Noninferiority Between Efgartigimod PH20 SC and Efgartigimod IV in Total IgG (%) Reduction at Day 29 Was Met

Change (%) from Baseline in Total IgG Levels at Day 29 (primary endpoint; overall and AChR-Ab+ populations)

Change (%) from Baseline Over Time in Total IgG Level (overall and AChR-Ab+ populations)



Similar Effects Across the Multiple Efficacy Endpoints Were Reported for Both Efgartigimod PH20 SC and Efgartigimod IV

MG-ADL Total Score Change from Baseline Over Time (overall and AChR-Ab+ populations)

QMG Total Score Change from Baseline Over Time (overall and AChR-Ab+ populations)



Change in MG-ADL Total Score at Week 4 (overall population)

Efgartigimod PH20 SC (n=52) Efgartigimod IV (n=53)

Change in QMG Total Score at Week 4 (overall population)

Efgartigimod PH20 SC (n=52) Efgartigimod IV (n=51)



Scores above dashed line indicate clinically meaningful improvement. Minimum improvements 1 week after the last infusion of cycle 1 (week 4).

Change in MG-ADL Total Score at Week 4 (AChR-Ab+ population)

Change in QMG Total Score at Week 4 (AChR-Ab+ population)



Scores above dashed line indicate clinically meaningful improvement. Minimum improvements 1 week after the last infusion of cycle 1 (week 4).

Summary of Adverse Events

Efgartigimod PH20 SC (n=55)

Efgartigimod IV (n=55)

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SUMMARY



The primary endpoint was met for noninferiority of efgartigimod PH20 SC 1000 mg to IV 10 mg/kg in terms of percent reduction from baseline in total IgG levels at Day 29, ie, 7 days after the fourth SC or IV administration



Safety and tolerability of efgartigimod PH20 SC was similar to efgartigimod IV, with the exception of injection-site reactions, which were all mild-to-moderate in severity and did not lead to treatment discontinuation

ABBREVIATIONS: AChEI, acetylcholinesterase inhibitor; AChR-Ab, acetylcholine receptor antibody; AE, adverse event; EFG, efgartigimod; FcRn, neonatal Fc receptor; gMG, generalized myasthenia gravis; IgG, immunoglobulin G; IV, intravenous; MG-ADL, Myasthenia Gravis Activities of Daily Living; MGFA, Myasthenia Gravis Foundation of America; NSIST, nonsteroidal immunosuppressive therapy; PH20, recombinant human hyaluronidase PH20; QMG, Quantitative Myasthenia Gravis; SAE, serious adverse event; SC, subcutaneous; SE, standard error.

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