The face of myasthenia gravis

Ruiter, A.M.; Naber, W.C.; Verschuuren, J.J.G.M.; Tannemaat, M.R.

NEUROIMAGES

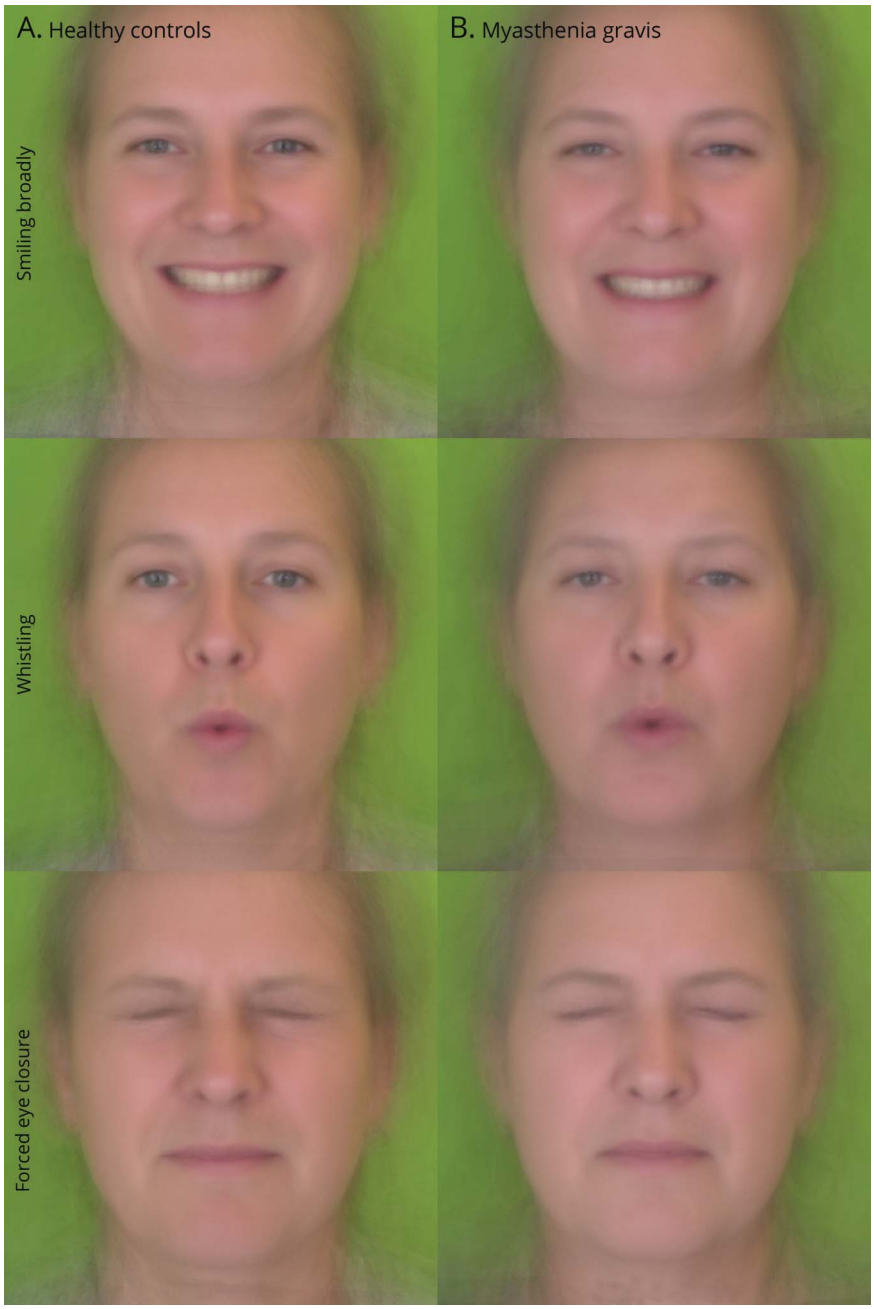
The face of myasthenia gravis

Annabel M. Ruiter, MD, Willemijn C. Naber, MD, Jan J.G.M. Verschuuren, MD, PhD, and Martijn R. Tannemaat, MD, PhD

Neurology® 2020;95:89-90. doi:10.1212/WNL.0000000000009782

Correspondence
Dr. Ruiter
a.m.ruiter@lumc.nl

Figure The face of myasthenia gravis (MG)



(A) Healthy controls (n = 38), 44.7% male, mean (SD) age 48.6 (±16.3) years. (B) Patients with MG (n = 52), 36.5% male, mean (SD) age 54.8 (±18.7) years. Mean (SD) quantitative MG score for disease severity was 9.2 (±4.8).

From the Department of Neurology, Leiden University Medical Center, the Netherlands.

Go to Neurology.org/N for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

Myasthenia gravis (MG) is characterized by fluctuating weakness and fatigability of skeletal muscles. In most patients, extraocular and bulbar muscles are affected first, leading to diplopia, ptosis, and weakness of facial muscles.[1] We recorded the faces of 38 healthy controls and 52 patients with MG while performing a standardized set of facial expressions. These images were averaged using Python version 3.8.0. This resulted in highly similar faces with no recognizable individual features. The only discernible differences are typical clinical hallmarks of the disease: ptosis and generalized facial weakness around the eyes and mouth resulting in less vivid facial expression (figure).

Study funding

No targeted funding reported.

Disclosure

The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

Appendix Authors

Name	Location	Contribution
Annabel M. Ruiter, MD	Department of Neurology, Leiden University Medical Center, the Netherlands	Wrote the manuscript
Willemijn C. Naber, MD	Department of Neurology, Leiden University Medical Center, the Netherlands	Gathered photographs of each individual participant used for averaging
Jan J.G.M. Verschuuren, MD, PhD	Department of Neurology, Leiden University Medical Center, the Netherlands	Reviewed and corrected the manuscript
Martijn R. Tannemaat, MD, PhD	Department of Neurology, Leiden University Medical Center, the Netherlands	Reviewed and corrected the manuscript

Reference

1. Gilhus NE, Tzartos S, Evoli A, Palace J, Burns TM, Verschuuren J. Myasthenia gravis. Nat Rev Dis Primers 2019;5:30.