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The face of myasthenia gravis

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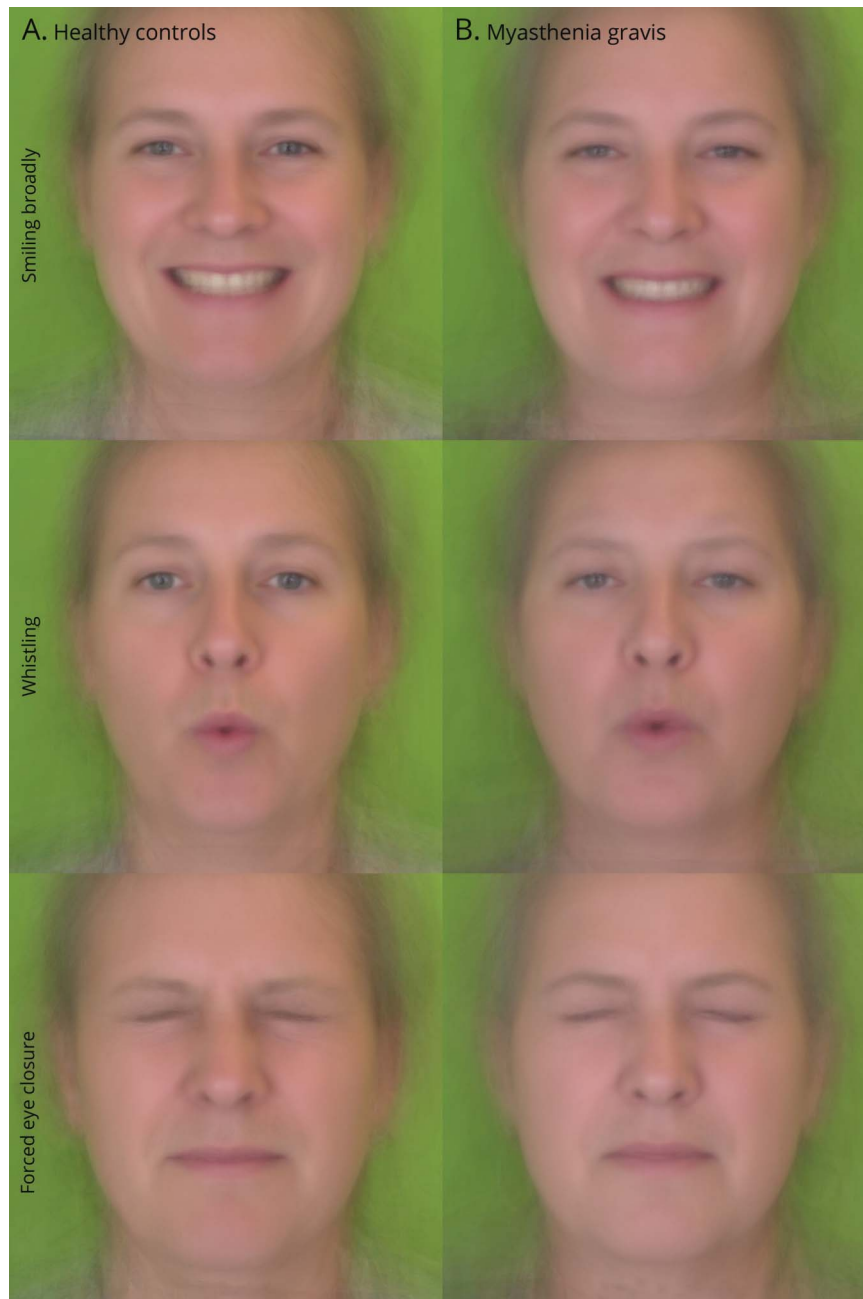
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Figure The face of myasthenia gravis (MG)



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

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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).

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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

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