Pupillary sign of aberrant regeneration of the third nerve

A 55-year-old woman presented with a third nerve palsy and impaired abduction of her right eye. MRI showed a lesion at the orbital apex extending into the cavernous sinus. A biopsy showed invasive *Aspergillus fumigatus* and she was treated with antifungals with only partial improvement.

Twelve years later, she had complete ptosis, partially restricted abduction, adduction, and depression of the right eye. The right pupil, which did not constrict to light or near vision, constricted on downgaze (video on the *Neurology*® Web site at Neurology.org), diagnostic of aberrant regeneration,¹ which occurs when regenerating axons are misdirected to muscles they were not intended, such as the iris sphincter.²

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Supplemental data at
Neurology.org

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