# The Diagnostic Odyssey in Myasthenia Gravis

## Patient #3: Delayed diagnosis leading to disease exacerbation in man with late-onset MG

57-year-old-male

Case contributor and commentary:

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## Age 56-57

**Initial symptoms:**

- "Numbness" of the right side of his face with drooping of the right eyelid
- Slurred speech and difficulty chewing; had to hold his jaw closed to eat
- Frequent choking episodes and nasal regurgitation of liquids
- Lost 30 pounds over 3-4 months
- In the last 1-2 months in his job as a carpenter, had difficulty holding a hammer, drilling above his head and carrying heavy items
- Could use stairs and get out of chairs without difficulty

**PCP workup:**

- Considered Bell's palsy as the cause of facial weakness
- Ordered AChR binding antibody test

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**Outcomes and Management:**

- Prescribed 5 days of prednisone, with no appreciable response
- AChR antibodies were present

## 5 months later

**Patient was referred for neuromuscular evaluation and presented with the following symptoms:**

- Five-month history of intermittent droopy eyelids
- Difficulty chewing solid foods
- Slurred speech
- Weakness in arms
- Intermittent double vision with vertical displacement when staring at objects
- Worsening symptoms in the evening

### Diagnostic evaluation

**Neurological exam:**

Cranial nerves

- Bilateral ptosis, moderately severe on the right, mild on the left
- No diplopia
- Moderately weak eyelid closure and cheek puff

Deep tendon reflexes

- Normal

Motor exam

- Moderately severe weakness of neck flexion and shoulder abduction bilaterally
- No muscle atrophy

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**Electrodiagnostic testing:**

» Repetitive nerve stimulation study of nasalis and trapezius muscles showed a decremental response, which confirmed the presence of abnormal neuromuscular transmission as seen in myasthenia gravis

**Management based on MG diagnosis**

» Admitted to the hospital and received 3 courses of plasma exchange, which resolved all symptoms except for persistent bilateral mild ptosis and mild eye closure weakness
» Chest CT did not reveal thymoma
» Started prednisone 20mg daily followed by mycophenolate mofetil 1000mg twice per day

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**Follow-up evaluations**

» Examination 2 months after discharge showed further improvement of symptoms except for residual mild eyelid closure weakness

**Commentary:** The peak onset of MG in males occurs in their 60s.[1] Prompt therapy is required in patients with MG as they may develop life-threatening weakness.

In this patient, a 5-month delay in diagnosis resulted in severe bulbar symptoms requiring emergent plasma exchange.

**Key learning points**

» Delay in diagnosis can lead to life-threatening weakness
» Severe bulbar involvement requires emergent therapy such as plasma exchange

References

1. Sanders DB, Raja SM, Guptill JT, Hobson-Webb LD, Juel VC, Massey JM. The Duke myasthenia gravis clinic registry: I. Description and demographics. Muscle and Nerve. 2021;63(2):209-216. doi:10.1002/mus.27120