Obstipation Masquerading as Myasthenia Gravis

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Introduction

We present a case of acute weakness and worsening of respiratory failure in the setting of obstipation initially thought to be a myasthenic crisis.

HPI

A 71 year-old man with a body mass index of 42, type 2 diabetes mellitus, obesity hypoventilation syndrome on 2 liters of oxygen, and progressive, ascending weakness treated with intravenous immune globulin (IVIG) 1 year prior presented with acute generalized weakness. He had multiple falls and reported dropping items unintentionally for one day.

VS: T 99°F, BP 162/90, HR 91, RR 18, SpO2 of 97% on 2 liters, BMI 42

PE: Dysarthric speech, bilateral ptosis with minimal improvement on ice pack test, and 1/5 strength globally.

Labs:

140	109	35	105
4.1	25	1.6	

12.2	13.1	175
	43.3	

- ABG: 7.18 (pH) / 58 mmHg (pCO_2) / 73 mm Hg (pO2) / 20.9 mmol/L (HCO_3) / 94.1% (SaO_2)
- Negative inspiratory force of − 40 cm Hg (normal > − 60 cm Hg).

This finding was concerning for myasthenia gravis (MG) versus chronic inflammatory demyelinating polyneuropathy. He was transferred to the ICU for respiratory monitoring.

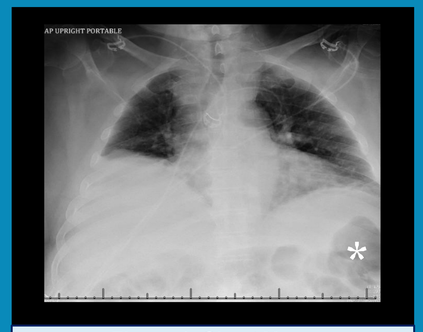

Figure 1. Chest X-ray
Large gastric bubble (*) noted upon re-review which otherwise was read as low lung volumes

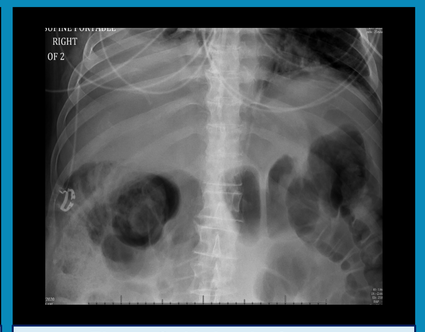

Figure 2. Abdominal x-ray
Generalized colonic ileus pattern with gaseous delineation of nondilated loops of small bowel.

Hospital Course

He was started on pyridostigmine and given 1 dose of IVIG with minimal improvement in his respiratory status. While monitoring his respiratory drive, his abdomen was noted to be distended. A chest X-ray (Fig. 1) on admission was re-reviewed and an enlarged gastric bubble was noted. A subsequent abdominal x-ray (Fig. 2 & 4A) showed gaseous loops of bowel and severe stool burden. Given the concern for obstruction, a computed tomography of the abdomen and pelvis (Fig. 3) was done and showed extensive colonic distention with fecal impaction.

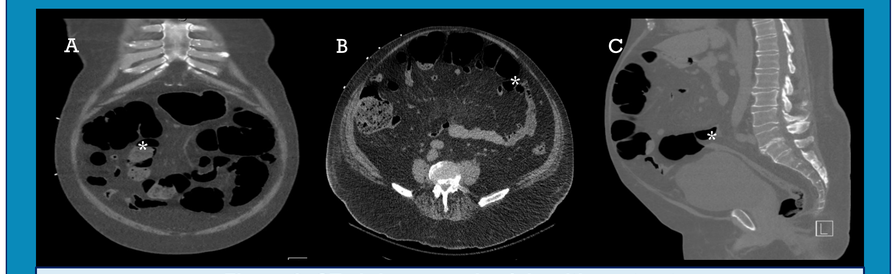

Figure 3. CT abdomen and pelvis with contrast
A. (coronal view) Extensive colonic distention with fecal impaction **B.** (axial view) Moderate colonic distention seen with transition point in the distal sigmoid colon with increased stool burden **C.** (sagittal view) Moderate colonic distention seen with transition point (*) in the distal sigmoid colon with increased stool burden.

Case Conclusion

He was started on an aggressive bowel regimen including neostigmine with multiple bowel movements. His strength improved slightly, but his respiratory status improved immediately. Acetylcholine receptor antibodies came back negative. A repeat abdominal X-ray (Fig. 4B) showed improvement and he was discharged to a skilled nursing facility for rehabilitation.

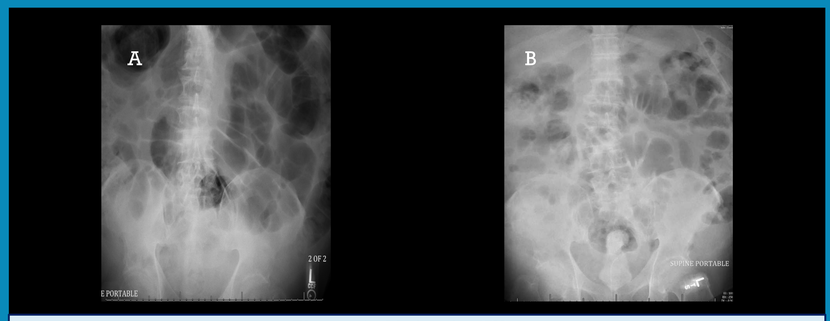

Figure 4. Abdominal X-ray
A. Paucity of gas in rectosigmoid region concerning for large bowel obstruction. **B.** Gas present within the small bowel and colon with no fluid level or extraluminal gas identified on portable supine exam

Discussion

Severe fecal impaction secondary to chronic constipation can contribute to respiratory distress, especially with possible concomitant neuromuscular disease. The initial working diagnosis was myasthenia gravis. However, they patient did not response to either pyridostigmine nor IVIG. Additionally, he did not have antibodies to acetylcholine receptors. The increased abdominal distention from stool burden reduced functional capacity resulting in a restrictive pattern of respiratory failure likely exacerbated by his underlying comorbidities. An aggressive bowel regimen is what ultimately led to an improvement in his respiratory status. It is hard to explain that despite his cardinal symptoms of MG, his neuropathy resolved not with immunosuppression, but with disimpaction.