Case Report Hellas

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George Michas, MD, MScRes, PhD
1st Department of Internal Medicine
General Hospital of Kalamata

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Γενικό Νοσοκομείο Καλαμάτας

Η Υγεία είναι δικαίωμα για τον πολίτη, είναι υποχρέωση για μια ευνομούμενη Πολιτεία

Presentation at the emergency department

- A 48-year-old man presented to the A&E complaining of acute abdominal pain characterized by exacerbations and remissions, and nausea for the last 12 hours.
- Extending to both lower quadrants but not above the umbilicus.
- No vomiting, no diarrhea, no fever.

History

- Not smoking
- No previous health problems
- No surgeries
- No illicit drug use
- Habitual drinking

Clinical Examination

- The patient was able bodied.
- On examination, the chest was clear, but the lower half of his abdomen was tender to deep palpation. Bowel sounds were present.
- Blood pressure was 140/90 mmHg, and heart and respiratory rate were 95 and 16/min, respectively.
- Heart sounds were normal.
- Temperature, SpO2, and blood gases were normal.
- Rectal examination was normal.

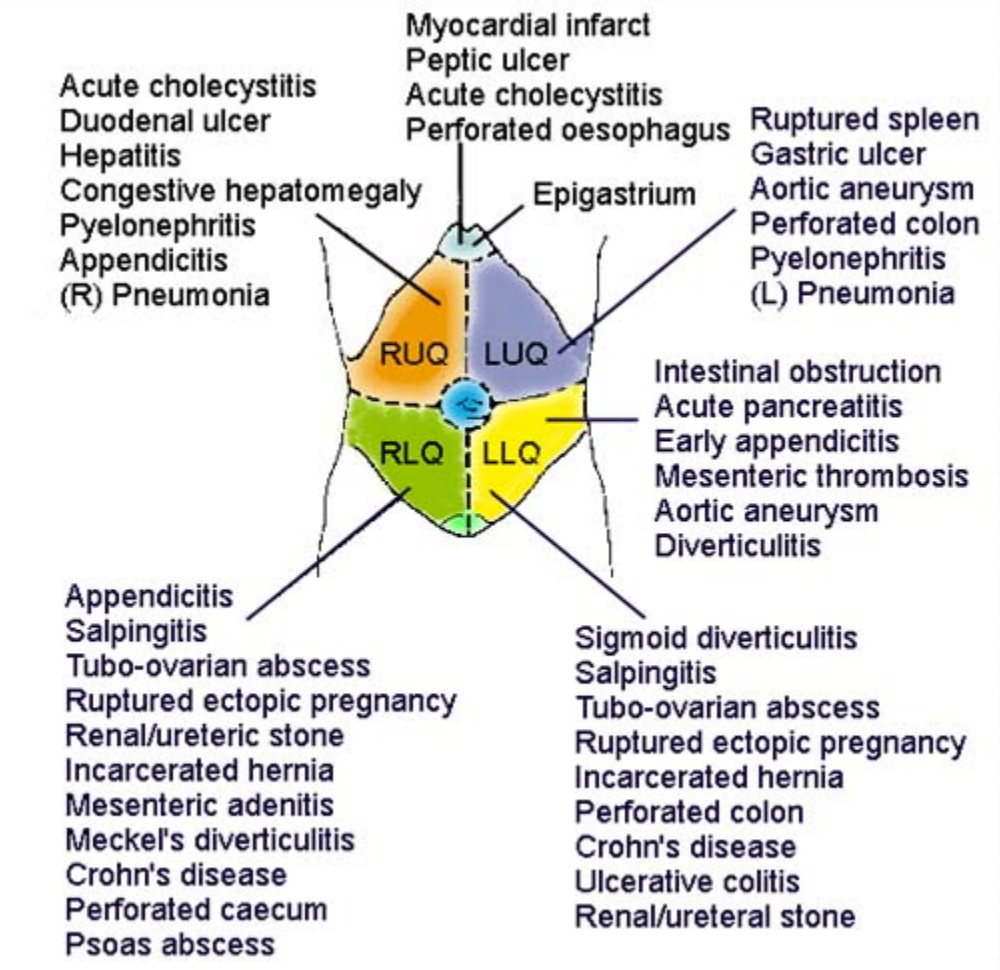
Other tests…

- Total blood count showed a mild leukocytosis with polymorphonuclear type.
- ESR and CRP were within normal limits.
- Blood glucose, renal and liver function tests were normal and so was the urine examination.
- Blood and urine amylase were normal.

Thoughts

- Probable diagnoses
- Tests
- Course of action

Differential Diagnosis



More tests…

- Chest and abdominal x-ray, ECG, abdominal ultrasound, and computed tomography (CT) of the abdomen were negative for pathological findings.
- A CT angiography that was performed to exclude a partition aneurysm was also negative.

Course of action

- The patient was admitted to the surgical department for further investigation of the abdominal pain.

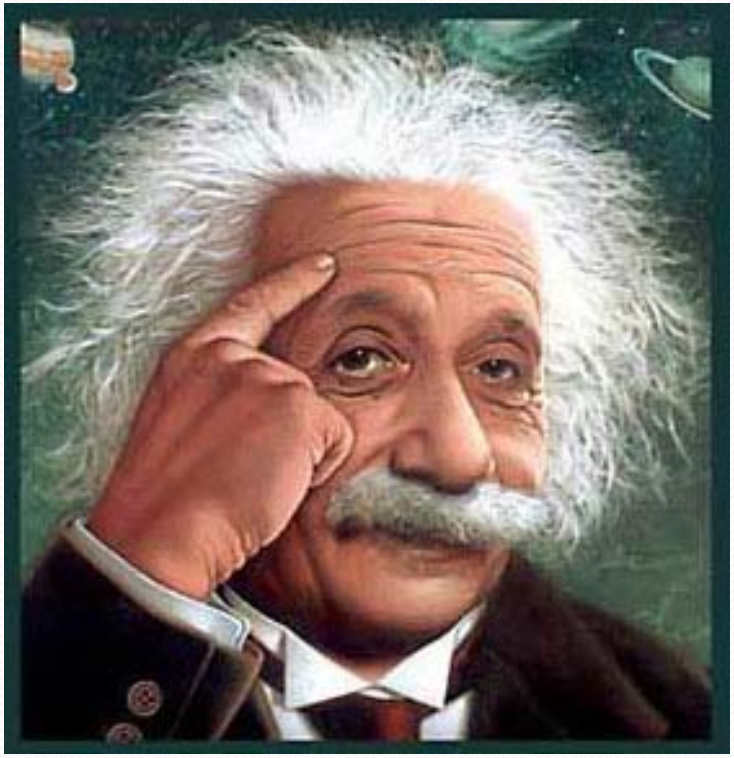
You thought that it would be easy?

- On the day after admission, the patient developed weakness and inability to walk and stand. The patient was essentially unable to walk unaided.

Here come the super(wo)men internists…

- On examination, he looked weak,
  had tachypnea and
  was heavily perspiring.
- His consciousness level was excellent.
- The arms were normal, but there was numbness and severe weakness in both legs, while tendon reflexes were absent.

Any thoughts?



HISTORY!!!

- When enquired about recent infections, he mentioned that 10 days ago he had an upper respiratory infection, and fever up to 38.5°C that lasted for 2 days.
- The brain CT was normal, and the lumbar puncture did not show presence of either protein (35mg/dl) or cells (3/mm^3).
- The possibility of **Guillain-Barré syndrome (GBS)** was raised.

Diagnostic criteria for GBS from the National Institute of Neurological Disorders and Stroke (NINDS)

` **Required features include:**

- Progressive weakness of more than one limb, ranging from minimal weakness of the legs to total paralysis of all four limbs, the trunk, bulbar and facial muscles, and external ophthalmoplegia.
- Areflexia. While universal areflexia is typical, distal areflexia with hyporeflexia at the knees and biceps will suffice if other features are consistent.

Supportive features include:

- Progression of symptoms over days to four weeks
- Relative symmetry
- Mild sensory symptoms or signs
- Cranial nerve involvement, especially bilateral facial nerve weakness
- Recovery starting two to four weeks after progression halts
- Autonomic dysfunction
- No fever at the onset
- Elevated protein in CSF with a cell count <10 mm3
- Electrodiagnostic abnormalities consistent with GBS

Discussion (I)

- Guillain-Barré syndrome (GBS) is an important cause of **acute neuromuscular paralysis**. GBS is a heterogeneous condition with several variant forms (acute immune-mediated polyneuropathies).
- Most common forms of the syndrome include acute inflammatory demyelinating polyneuropathy (AIDP), acute motor axonal neuropathy (AMAN), acute sensorimotor axonal neuropathy (AMSAN), and the Miller-Fisher syndrome (MFS).
- Common feature of all these neuropathies is the rapidly progressive polyneuropathy, usually provoked by an **antecedent respiratory or gastrointestinal infection**.
- One potential underlying mechanism is that the antecedent infection evokes an **immune response**, which in turn cross-reacts with peripheral nerve components because of **molecular mimicry**.

Do you remember Matlock?

Discussion (II)

- The reported **incidence** of GBS in Western countries ranges from 0.89 to 1.89 cases/100,000 person-years.
- An increase of 20% is observed with every 10-year increase in age after the first decade of life.
- **Men** are 1.8-times more likely to be affected than women.
- **Severe respiratory muscle weakness** requiring ventilatory support develops in 10-30%.
- The mainstays of therapy for GBS include **plasmapheresis** and administration of **intravenous immune globulin**. The treatments are equivalent and improve outcome.

Course of action

- The patient was transferred to the neurology department of a tertiary hospital in Athens.
- During the transfer, he presented weakness of the arms and urinary retention.
- Four hours after his arrival, he developed acute difficulty with breathing and required mechanical ventilation for 2 weeks.
- The further diagnostic tests (second lumbar puncture, nerve conduction studies, electromyography) conducted confirmed the diagnosis of GBS.

Follow up

- The patient was discharged 1 month later, after having had a tracheostomy and developed tetraplegia. He had to remain in a rehabilitation center for 4 months.

Elusive

- **Pain, usually in the back and extremities, can be the primary presenting symptom and is reported by up to 66% of patients with GBS.** Simple analgesics or NSAIDS may be tried, but often do not provide adequate pain control. Appropriate narcotic analgesics can be used alternatively, but require careful monitoring.
- Although abdominal pain is a common complaint in the A&E because of surgical and non-surgical conditions, in only **extremely rare cases GBS presents with abdominal pain as the first symptom**.

Literature search

Archives of Emergency Medicine, 1988, 5, 242–245

CASE REPORT

Abdominal pain as a presenting symptom of the Guillain-Barré syndrome

P. S. WONG, N. J. FOTHERGILL & R. TOUQUET
Accident and Emergency Department, St Mary's Hospital, London, England

Thank you for your attention

- Nikoletta Xydia, MD Consultant in GIM
- Efthymia Varytimiadi, MD
- Lefki Nikolopoulou, MD
- Alexandra Nikolopoulou, MD
- Adriana Theodoropoulou, MD