
**Demographic:** Male, 81 yrs, America North, General speciality

**Clinical features extracted from the case and entered into the query box:**
- fever
- chills
- productive cough
- diffuse weakness
- progressive anorexia
- confusion
- lethargy
- irregular pulse
- tachycardic
- hypertensive
- tachypnoeic
- low oxygen saturations
- axilla lymphadenopathy
- systolic ejection murmur at upper sternal border
- palpable spleen
- mild confusion
- truncal weakness

**Synonyms used by Isabel for the above query:**
- irregular pulse
- lethargy
- confusion
- productive cough
- palpable spleen
- fever
STOP!

Before you read further you might want to construct your own:

- Complete differential diagnosis
- Final diagnosis

In the following section you will find:

- The differential diagnosis constructed by the MGH panel
- The final diagnosis of the case
- Which of the MGH panel differential diagnoses did Isabel contain
- Did Isabel suggest the Final diagnosis

**Differential Diagnoses considered by the MGH panel:**
Herpes Simplex Encephalitis
West Nile Encephalitis
Chronic Lymphocytic Leukemia
Aseptic Meningitis – Enterovirus
St Louis Encephalitis
Eastern Equine Encephalitis
Powassan Virus
Partially treated Meningococcus and Pneumococcal Meningitis
Listeria Meningoencephalitis

**Final Diagnoses of the case according to NEJM:**
Encephalomyelitis due to West Nile Virus
Chronic Lymphocytic Leukemia

**Differential Diagnoses of the case as given by Isabel:**
Herpes Simplex Encephalitis - No
West Nile Encephalitis – Yes, 1st page
Chronic Lymphocytic Leukemia – Yes Click on Neoplastic diseases heading
Aseptic Meningitis – Enterovirus - No
St Louis Encephalitis - No
Eastern Equine Encephalitis - No
Powassan Virus - No
Partially treated Meningococcus and Pneumococcal Meningitis - No
Listeria Meningoencephalitis - No

Was the final diagnosis given by Isabel:
Encephalomyelitis due to West Nile Virus – Yes, 1st page
Chronic Lymphocytic Leukemia – Click on Neoplastic diseases heading

Entire presentation cut and pasted into the Isabel query box:
Herpes Simplex Encephalitis - No
West Nile Encephalitis - No
Chronic Lymphocytic Leukemia – Yes, 1st page
Aseptic Meningitis - No
St Louis Encephalitis - No
Eastern Equine Encephalitis - No
Powassan Virus - No
Partially treated Meningococcus and Pneumococcal Meningitis – Click on Infectious diseases heading
Listeria Meningoencephalitis - No

Isabel differential for extracted features:

| ENDOCRINE SYSTEM || SHOCK STATES |
|-------------------|--------------|
| Hyperthyroidism   | Cardiogenic Shock | RD |

| INFECTIOUS DISEASES || RESPIRATORY SYSTEM DISORDERS |
|---------------------|-----------------------------|
| Lyme Disease        | Sepsis and Shock | RD |
| Arboviral Infections / Encephalidies | Lung Neoplasms | RD |
| ↑ West Nile Encephalitis | COPD | RD |

| NEOPLASTIC DISEASES || RHEUMATIC DISEASES |
|---------------------|-------------------|

| LIVER DISORDERS || CARDIAC DISORDERS |
|-----------------|------------------|

| TOXICOLOGY ||||