



**Case 6 (February 19 2009):** [N Engl J Med. 360\(8\):802-809](#)

**Demographic:** Female, 37 yrs, Pregnancy not specified, America North, General speciality

***Clinical features extracted from the case and entered into the query***

***box:***

seizure  
vertigo  
nausea  
vomiting  
tinnitus  
diminished hearing  
ear fullness  
difficulty walking  
facial weakness  
fatigue  
agitation  
confusion  
ear pain  
headache  
hypertonia

***Synonyms used by Isabel for the above query:***

ear pain  
fatigue  
seizure  
vertigo  
vomiting  
facial weakness  
headache  
difficulty walking  
tinnitus  
confusion  
agitation  
ear fullness



## **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:***

Lymphoma  
Tuberculosis  
Neuroborreliosis/Lyme Disease

***Final Diagnosis of the case according to NEJM:***

Neurosarcoidosis

***Differential Diagnoses of the case as given by Isabel:***

Lymphoma – under Brain Neoplasms in Nervous system disorders  
Tuberculosis – under Infectious diseases heading  
Neuroborreliosis/Lyme Disease – under Infectious diseases heading

***Was the final diagnosis given by Isabel:***

Yes, Neurosarcoidosis – under Sarcoidosis in Respiratory disorders heading

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## Isabel Differential:

- INFECTIOUS DISEASES >> click to collapse	- NERVOUS SYSTEM DISORDERS >> click to collapse
<input type="checkbox"/> <a href="#">Bacterial Meningitis</a> ? RD	<input type="checkbox"/> <a href="#">Migraine</a> ? RD
<input type="checkbox"/> <a href="#">Viral Meningoencephalitis</a> ? RD	<input type="checkbox"/> <a href="#">Transient Ischemic Attack</a> ? RD
<input type="checkbox"/> <a href="#">Tuberculosis</a> ? RD	<input type="checkbox"/> <a href="#">Intracranial Hemorrhage</a> ? RD
<input type="checkbox"/> <a href="#">Herpes Zoster</a> ? RD	<input type="checkbox"/> <a href="#">Head Injury</a> ? RD
<input type="checkbox"/> <a href="#">Toxic Shock Syndrome</a> ? RD	<input type="checkbox"/> <a href="#">Multiple Sclerosis</a> ? RD
<input type="checkbox"/> <a href="#">Arboviral Infections / Encephalitides</a> ? RD	<input type="checkbox"/> <a href="#">Ataxic Disorders</a> ? RD
<input type="checkbox"/> <a href="#">Fungal Meningitis</a> ? RD	<input type="checkbox"/> <a href="#">Cerebral Sinus Venous Thrombosis</a> ? RD
<input type="checkbox"/> <a href="#">Lyme Disease</a> ? RD	<input type="checkbox"/> <a href="#">Cerebral AV Malformations</a> ? RD
<input type="checkbox"/> <a href="#">Rocky Mountain Spotted Fever</a> ? RD	<input type="checkbox"/> <a href="#">Brain Neoplasms</a> ? RD
<input type="checkbox"/> <a href="#">Cryptococcus Neoformans</a> ? RD	<input type="checkbox"/> <a href="#">Susac Syndrome</a> ? RD
<input type="checkbox"/> <a href="#">Brucellosis</a> ? RD	
<input type="checkbox"/> <a href="#">Primary Amoebic Meningoencephalitis</a> ? RD	
+ DISORDERS OF THE EAR << click to expand	- RESPIRATORY DISORDERS >> click to collapse
<input type="checkbox"/> <a href="#">Otitis Media Complications</a> ? RD	<input type="checkbox"/> <a href="#">Atypical Pneumonia</a> ? RD
<input type="checkbox"/> <a href="#">Menière's Disease</a> ? RD	<input type="checkbox"/> <a href="#">Lung Neoplasms</a> ? RD
	<input type="checkbox"/> <a href="#">Sarcoidosis</a> ? RD
NEPHROLOGY	
<input type="checkbox"/> <a href="#">Renal Failure</a> ? RD	
+ ENVIRONMENTAL HEALTH HAZARDS << click to expand	
+ RHEUMATIC DISEASES << click to expand	
+ CARDIAC DISORDERS << click to expand	

**Why did this diagnosis come up ?**

We matched the terms: malaise | fatigue | seizures | seizure | facial nerve palsy | headache | headaches | loc | loss of consciousness | confused | hear | head ache | hearing

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Degree of match between query entered and isabel database (Not clinical probability): 48%

- Lofgren' Syndrome
- Neurosarcoidosis**