

**Case 30 (September 29 2005):** [N Engl J Med 2005;353:1387-94](#)

**Demographic:** Male, 56yrs, America North, General speciality

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

low-grade fever  
immunocompromised  
dry cough  
nasal congestion  
night sweats  
epitrochlear and axillary lymphadenopathy  
violaceous nodule with a necrotic eschar on the dorsum of hand

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

dry cough  
nasal congestion  
night sweats

**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:***

**Table 2. Differential Diagnosis of Lymphocutaneous Infection in a Patient Who Is Immunocompromised (without International Travel).**

**Bacterial infections**

*Bartonella henselae* (cat scratch disease, bacillary angiomatosis)  
*Erysipelothrix rhusiopathiae*  
*Francisella tularensis* (ulceroglandular tularemia)  
Nocardia species  
*Bacillus anthracis* (cutaneous anthrax)  
*Rhodococcus equi*  
*Yersinia pestis*

**Mycobacterial infections**

*Mycobacterium tuberculosis*  
Nontuberculous mycobacteria (*M. marinum*, *M. kansasii*, *M. abscessus*, *M. chelonae*, *M. fortuitum*, *M. haemophilum*, *M. avium* complex)

**Fungal infections**

*Sporothrix schenckii*  
*Coccidioides immitis*  
*Blastomyces dermatitidis*  
*Histoplasma capsulatum*  
*Cryptococcus neoformans*  
Filamentous fungi

**Viral infections**

Parapoxvirus (orf from goats or sheep, also called infectious ecthyma)  
Orthopoxvirus (cowpox)

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

*Bartonella henselae* infection (cat scratch disease) in an immuno-compromised host.

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

Bartonella (Cat-scratch disease) – Isabel 1<sup>st</sup> page  
Anthrax (Cutaneous anthrax) – Isabel 1<sup>st</sup> page  
Tuberculosis – Isabel 1<sup>st</sup> page  
Tularemia – Isabel 1<sup>st</sup> page  
Yersinia pestis - Isabel 1<sup>st</sup> page  
Nocardia infection – click on Infectious diseases heading  
Histoplasmosis - click on Infectious diseases heading  
Ecthyma Gangrenosum – click on Dermatology heading

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

Yes, Isabel 1<sup>st</sup> page

***Entire presentation cut and pasted into the Isabel query box:***

Bartonella (Cat-scratch disease) – click on Infectious diseases heading

Anthrax – Isabel 1<sup>st</sup> page

Tuberculosis – Isabel 1<sup>st</sup> page

Yersinia pestis - Isabel 1<sup>st</sup> page

Tularemia – click on Infectious diseases heading

Nocardia infection – click on Infectious diseases heading

**Isabel differential:**

<b>RESPIRATORY SYSTEM DISORDERS</b> << <a href="#">Click here</a>	<b>INFECTIOUS DISEASES</b> << <a href="#">Click here</a>
<p><a href="#">Sarcoidosis</a> <b>RD</b></p> <p>↳ <a href="#">Lung Neoplasms</a> <b>RD</b></p>	<p>↳ <a href="#">Bartonella Infection</a> <b>RD</b></p> <p><a href="#">Tularemia</a> <b>RD</b></p> <p>↳ <a href="#">Anthrax</a> <b>RD</b></p> <p>↳ <a href="#">Toxoplasmosis</a> <b>RD</b></p> <p>↳ <a href="#">Tuberculosis</a> <b>RD</b></p> <p>↳ <a href="#">Yersinia Infection</a> <b>RD</b></p> <p><a href="#">Lyme Disease</a> <b>RD</b></p> <p><a href="#">Chlamydia Trachomatis</a> <b>RD</b></p>
<b>NEOPLASTIC DISEASES</b> << <a href="#">Click here</a>	<b>NEUROMUSCULAR DISORDERS</b> << <a href="#">Click here</a>
<b>DERMATOLOGY</b> << <a href="#">Click here</a>	<b>ENVIRONMENTAL HEALTH HAZARDS</b> << <a href="#">Click here</a>
<b>HEMATOLOGY</b> << <a href="#">Click here</a>	
<b>CARDIAC DISORDERS</b> << <a href="#">Click here</a>	
<b>RHEUMATIC DISEASES</b> << <a href="#">Click here</a>	