

**Case 28 (September 14 2006):** [N Engl J Med 2006;355:1161-7.](#)

**Demographic:** Male, 59 yrs, America North, General speciality

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

fullness in the "right upper quadrant"  
bilateral renal masses  
hypertension

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

Right upper quadrant  
Hypertension

**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:**

Renal-cell carcinoma

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

Renal-cell carcinoma, clear-cell type, involving both kidneys, with solitary metastasis to the right lung.

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

Renal-cell carcinoma – Isabel 1<sup>st</sup> page

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

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

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

Renal-cell carcinoma – Isabel 1<sup>st</sup> page

























***Isabel differential for painless hematuria:***

<p><b>NEPHROLOGY</b> ▾ <a href="#">Click here</a></p> <p><a href="#">IgA Nephropathy</a> 82% <b>RD</b></p> <p><a href="#">Sickle Cell Nephropathy</a> 60% <b>RD</b></p> <p><a href="#">Benign Familial Hematuria</a> 46% <b>RD</b></p> <p><a href="#">Idiopathic Hypercalcuria</a> 45% <b>RD</b></p> <p>↳ <a href="#">Glomerulonephritis</a> 44% <b>RD</b></p> <p><a href="#">Alport Syndrome</a> 44% <b>RD</b></p>	<p><b>UROLOGIC DISORDERS</b> ▾ <a href="#">Click here</a></p> <p><a href="#">Bladder Neoplasms</a> 79% <b>RD</b></p> <p>↳ <a href="#">Neoplasms of the Kidney</a> 75% <b>RD</b></p> <p><a href="#">Genitourinary TB</a> 60% <b>RD</b></p>
<p><b>VASCULAR DISORDERS</b> ▾ <a href="#">Click here</a></p>	<p><b>HEMATOLOGY</b> ▾ <a href="#">Click here</a></p> <p>↳ <a href="#">Sickle Cell Disease / Crisis</a> 74% <b>RD</b></p>
<p><b>HUMAN GENETICS</b> ▾ <a href="#">Click here</a></p>	<p><b>ENDOCRINE SYSTEM</b> ▾ <a href="#">Click here</a></p>
<p><b>TOXICOLOGY</b> ▾ <a href="#">Click here</a></p>	<p><b>RHEUMATIC DISEASES</b> ▾ <a href="#">Click here</a></p>
	<p><b>METABOLIC DISEASES</b> ▾ <a href="#">Click here</a></p>

***Isabel differential for hematuria, flank pain, flank mass:***

<p><b>UROLOGIC DISORDERS</b> ▾ <a href="#">Click here</a></p> <p>↳ <a href="#">Neoplasms of the Kidney</a> 96% <b>RD</b></p> <p>↳ <a href="#">Upper Urinary Tract Obstruction</a> 77% <b>RD</b></p> <p><a href="#">Bladder Neoplasms</a> 68% <b>RD</b></p>	<p><b>NEPHROLOGY</b> ▾ <a href="#">Click here</a></p> <p><a href="#">Idiopathic Hypercalcuria</a> 69% <b>RD</b></p> <p><a href="#">Nephrolithiasis</a> 67% <b>RD</b></p> <p><a href="#">Acute Interstitial Nephritis</a> 67% <b>RD</b></p> <p><a href="#">Cortical Necrosis</a> 67% <b>RD</b></p>
<p><b>CARDIAC DISORDERS</b> ▾ <a href="#">Click here</a></p> <p><a href="#">Infective Endocarditis</a> 67% <b>RD</b></p>	<p><b>VASCULAR DISORDERS</b> ▾ <a href="#">Click here</a></p> <p><a href="#">Renal Artery Aneurysms</a> 68% <b>RD</b></p>
<p><b>INFECTIOUS DISEASES</b> ▾ <a href="#">Click here</a></p> <p><a href="#">Tuberculosis</a> 62% <b>RD</b></p>	<p><b>GASTROINTESTINAL DISORDERS</b> ▾ <a href="#">Click here</a></p>
	<p><b>IATROGENIC DISORDERS</b> ▾ <a href="#">Click here</a></p>

**Isabel differential for extracted features:**

<b>UROLOGIC DISORDERS</b>  <a href="#">Click here</a>	<b>NERVOUS SYSTEM DISORDERS</b>  <a href="#">Click here</a>
<a href="#">Testicular Neoplasms</a>  49% 	<a href="#">Brain Neoplasms</a> 49% 
<a href="#">Neoplasms of the Kidney</a> 43% 	<a href="#">Epilepsy &amp; Seizure Disorders</a> 40% 
<a href="#">Renal-Cell Carcinoma</a> <a href="#">struction</a> 42% 	
<b>GASTROINTESTINAL DISORDERS</b>  <a href="#">Click here</a>	<b>CARDIAC DISORDERS</b>  <a href="#">Click here</a>
<a href="#">Cholelithiasis</a> 46% 	<a href="#">Systemic Hypertension</a> 47% 
<a href="#">Peritonitis</a> 41% 	<b>RESPIRATORY SYSTEM DISORDERS</b>  <a href="#">Click here</a>
	<a href="#">Lung Neoplasms</a> 45% 
<b>NEPHROLOGY</b>  <a href="#">Click here</a>	<b>NEOPLASTIC DISEASES</b>  <a href="#">Click here</a>
	<a href="#">Gastric Neoplasms</a> 40% 
<b>INFECTIOUS DISEASES</b>  <a href="#">Click here</a>	<b>HEMATOLOGY</b>  <a href="#">Click here</a>
<b>RHEUMATIC DISEASES</b>  <a href="#">Click here</a>	<b>ENDOCRINE SYSTEM</b>  <a href="#">Click here</a>
	<b>VASCULAR DISORDERS</b>  <a href="#">Click here</a>
	<b>TRAUMA INJURIES</b>  <a href="#">Click here</a>