
**Demographic:** Female, 46yrs, Not-pregnant, America North, General speciality

Clinical features extracted from the case and entered into the query box:
- bone pain
- antalgic gait
- pain with internal and external rotation of hip
- swelling over anterior tibia
- fatigue
- microcytic anemia
- hypophosphatemia
- elevated alkaline phosphatase
- hypocalcemia
- elevated parathyroid hormone
- osteopenia
- enlarged parathyroid gland

Synonyms used by Isabel for the above query:
- bone pain
- fatigue
- microcytic anemia
- hypophosphatemia
- elevated alkaline phosphatase
- hypocalcemia
- elevated parathyroid hormone
- vitamin D deficiency

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

**Final Diagnosis of the case according to NEJM:**
Brown tumor associated with osteitisfibrosa cystica in a patient with celac disease, malabsorption, vitamin D deficiency, hypocalcemia, and secondary hyperparathyroidism.

**Was the final diagnosis given by Isabel:**
Yes, under Orthopedic disorders heading
## Isabel Differential:

### ORTHOPEDIC DISORDERS
- Vit D Deficient Rickets / Osteomalacia
- Renal Osteodystrophy
- Osteitis Fibrosa Cystica

Why did this diagnosis come up?
We matched the terms: BONE PAIN / fatigue / elevated parathyroid hormone / increased alkaline phosphatase / low serum phosphate / low serum phosphorus / PAIN / pain / PARATHYROID / parathyroid.

Degree of match between query entered and Isabel database (Not clinical probability): 54%

- Prepatellar Bursitis 7/10
- Malignant Bone Tumors 7/10

### RHEUMATIC DISEASES
- Osteoarthritis 9/10
- Rheumatoid Arthritis 9/10

### RESPIRATORY DISORDERS
- Lung Neoplasms 9/10

### NEPHROLOGY
- Renal Failure 9/10

### NEOPLASTIC DISEASES
- Neuroendocrine Neoplasms 9/10

### NERVOUS SYSTEM DISORDERS
- Nervous System Tumors 9/10

### TOXICOLOGY
- Poisoning 9/10

### ENDOCRINE SYSTEM
- Hypothyroidism 7/10
- Hyperthyroidism 7/10
- Hyperparathyroidism 7/10

Why did this diagnosis come up?
We matched the terms: BONE PAIN / hypocalcemia / adynamia / PAIN / pain / OVER / over / ENLARGED / enlarged / PARATHYROID / parathyroid / GLAND / gland.

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

- Familial Primary Hyperparathyroidism
- Hyperparathyroidism-Jaw Tumor Synd
- Primary Hyperparathyroidism
- Secondary/Tertiary Hyperparathyroidism
- Pseudohypoparathyroidism 7/10
- Pathological Hypercalcemia 7/10
- Pendred's Syndrome 7/10

### NUTRITIONAL DISORDERS
- Vit C Deficiency 9/10

### INFECTION DISORDERS

### GASTROINTESTINAL DISORDERS

### DERMATOLOGY

### CARDIAC DISORDERS

### METABOLIC DISEASES