
Demographic: Male, 17yrs, America North, General speciality

Clinical features extracted from the case and entered into the query box:
- headache
- mood changes
- worsening academic performance
- fatigue
- cold intolerance
- weight gain
- bitemporal hemianopia
- decreased visual acuity
- acanthosis nigricans
- hyperprolactinemia
- skull-base lesion

Synonyms used by Isabel for the above query:
- Headaches
- Mood changes
- Fatigue
- Cold intolerance
- Weight gain
- Hyperprolactinemia

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:**
Pituitary adenoma (prolactinoma)
Brain neoplasm

**Final Diagnosis of the case according to NEJM:**
Pituitary adenoma (prolactinoma), prolactin secreting, with atypical features and a high proliferation fraction. Osteoblastoma of the skull.

**Differential Diagnoses of the case as given by Isabel:**
Prolactinoma – under Endocrine system heading
Brain neoplasm – under Nervous system disorders heading

**Was the final diagnosis given by Isabel:**
Yes, Prolactinoma under Endocrine system heading and Brain neoplasms under Nervous system disorders heading
Isabel Differential:

- ENDOCRINE SYSTEM >> click to collapse
  - Hypothyroidism
  - Type 2 Diabetes
  - Insulin Resistance Syndrome
  - Secondary Adrenal Insufficiency
  - Pituitary Neoplasms

Why did this diagnosis come up?
We matched the terms:
  hyperprolactinemia | headache | headaches
  | perform | performance | bitemporal | hemianopia | skull | base | lesion

Degree of match between query entered and Isabel database (Not clinical probability): 58%

- Acromegaly
  - Prokectinoma
  - McCune-Albright Syndrome
  - Empty Sella Syndrome

+ INFECTION DISEASES >> click to expand
  - Tuberculosis

OPHTHALMOLOGY
  - Acute Visual Loss

+ PSYCHOLOGIC DISORDERs >> click to expand
+ RHEUMATIC DISEASES >> click to expand
+ NEPHROLOGY >> click to expand
+ HUMAN GENETICS >> click to expand

- NERVOUS SYSTEM DISORDERS >> click to collapse
  - Intracranial Hemorrhage
  - Paroxysmal Dyskinesias
  - Cerebral Sinus Venous Thrombosis
  - Cavernous Sinus Thrombosis
  - Lateral Sinus Thrombosis
  - Sagittal Sinus Thrombosis
  - Septic Intracranial Thrombophlebitis
  - Mitochondrial Encephalomyopathies
    - Chronic Fatigue Syndrome
    - Brain Neoplasms

RESPIRATORY DISORDERS
  - Sleep Apnea

+ DERMATOLOGY >> click to expand
+ NEOPLASTIC DISEASES >> click to expand
+ TOXICOLOGY >> click to expand
+ CARDIAC DISORDERS >> click to expand
+ LIVER DISORDERS >> click to expand