

27-year-old man with decreased libido

Celeste Thomas, MD

History of Present Illness

- September 2010
 - Vision changes
 - When focusing on something he saw double in the peripheral field of vision
 - Decreased libido
 - Decreased spontaneous erections
 - Weight gain

History of Present Illness

- Reported symptoms to his physician in September 2011
- Laboratory studies were drawn
 - TSH = 1.33 uIU/mL (reference range 0.4 to 5.4)
 - Total Testosterone = 231.0 ng/dL (reference range 249.0 to 836.0)
- Started on testosterone patch 5mg transdermal

History of Present Illness

- January 2012 (on patch)
 - total testosterone 235 ng/dL (reference range 240 to 950)
 - free testosterone 7.8 ng/dL (reference range 9 to 30)
 - TSH 1.03 uIU/mL (reference range 0.27 to 4.20).
- Discontinued testosterone, didn't feel better and wondered why he needed it
- Presents to U of C Endocrine Clinic with wife
- She thinks his decreased libido has been ongoing for 2-3 years

What Other Questions Would You Ask?

- Frequency of shaving (-)
- Change in voice (-)
- Development of breast tissue (-)
- Breast tenderness (-)
- Breast discharge (-)
- Infertility (-)
- Fatigue ✓
- Change in body composition – decreased muscle mass ✓
- Depression, other change in mood ✓
- Diplopia (-)
- Headaches ✓
- Decreased concentration ✓

History

- PMH/PSH: none
- Allergies: none
- Medications/Supplements: none
- Social History:
 - Lives with wife
 - He is a lifelong non-smoker
 - Drinks approximately 1 beer per week
 - Does not use illicit drugs
 - not attempting to conceive
 - wife has prolactinoma
- Family History
 - Mother has fibromyalgia and arthritis.
 - Father has obstructive sleep apnea.
 - Paternal GF is alive in his late 70s
 - Maternal GF had coronary artery disease, stroke and GI cancer
 - Maternal GM had coronary artery disease, and hypertension
 - He has no family history of diabetes mellitus

Physical Exam

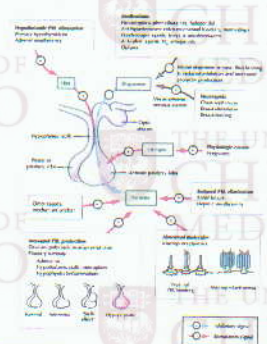
- Blood pressure 152/66, pulse 66, height 5 feet, 11 inches. Weight 228 pounds or 103 kg, BMI 31.7
- General Appearance: well-nourished, well-developed white male in no acute distress
- Eyes: Pupils equal, reactive to light. Conjunctivae and lids normal. EOMI, Visual fields evaluated without visual field loss on gross confrontation
- ENT: lips, teeth, and gums normal. Oropharynx clear.
- Neck: no acanthosis nigricans. Palpable thyroid, normal in size and texture
- Respiratory: Clear to auscultation and percussion bilaterally
- Cardiovascular: Regular rate with no extra heart sounds.
- Breast Exam: No gynecomastia, no tenderness.
- Abdomen/GI: bowel sounds are present. No abdominal striae. No hepatosplenomegaly
- Male Genitourinary: Normal testes size with no tenderness, no masses
- Musculoskeletal: Normal gait and station. Normal digits and nails. Normal muscle strength and tone.
- Lymphatic: No cervical lymphadenopathy
- Skin: Warm and dry
- Neurologic: Cranial nerves 2-12 intact. Deep tendon reflexes 2+. Sensation intact to light touch.
- Psychiatric: Normal judgment insight orientation.

Laboratory Studies

141	101	16	96	10.0	7.7	5.1
4.2	30	1.1			0.6	
					24	32
					40	

Testosterone, total = 205 ng/dL, reference range 240 to 950
 Testosterone, free = 7.6 ng/dL, reference range 9 to 30
 LH = 2.2 mIU/mL
 FSH = 3.2 mIU/mL

Prolactin 103.5 ng/mL, reference range 4.0-15.2 ng/mL.



Serri O et al. CMAJ 2003;169:575-581

Additional Evaluation

- MRI of his pituitary gland identified a 5.9x5.9x4.6 mm microadenoma.
- Given his impaired fasting glucose we also evaluated him for potential cortisol excess with a 24-hour urinary free cortisol
 - 27 mcg/24 hours (ref range 3.5-45)
 - Urine volume = 1225 mL

Therapy

- Started cabergoline 0.25 mg PO twice weekly at bedtime
 - Tolerating the medication well
- He will have repeat prolactin level drawn in 4 weeks when he returns for follow-up

References

- Serri O et al. Diagnosis and management of hyperprolactinemia. *Canadian Medical Association Journal* 2003;169:575-581
- Colao A. Pituitary tumours: the prolactinoma. *Best Practice & Research Clinical Endocrinology & Metabolism*. 2009 Oct;23(5):575-96.

- The National Cancer Institute just started keeping track of benign brain tumors in 2004.
- Since that time, about 7,000 pituitary tumors have been diagnosed each year.
- Most of these pituitary tumors were benign adenomas