

# 26 YEAR-OLD FEMALE WITH HEADACHES AND OLIGOMENORRHEA

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# History of Present Illness

- 26 yo female with no significant PMH
- Presented to medical care at OSH in 2004 with:
  - Headaches x 4 years
    - Whole head vs L-sided “shooting” pain q 3-4 months
    - Not relieved with Ibuprofen
  - Oligomenorrhea
  - Fatigue
- No galactorrhea, no vision changes.

# Diagnosis: Prolactinemia

- Prolactin levels elevated in 100's
- MRI Brain 4/2004: **6.5 x 7.4 x 6.6 mm** L-sided pituitary lesion.
- Treatment: Bromocriptine from 2004-2005.

## 2005:

- Did not tolerate Bromocriptine 2/2 HA, fatigue, nausea.
- Treatment change: Cabergoline 1 mg twice/week.

## 2007:

- Side effects on Cabergoline: headache and fatigue
- Cabergoline decreased to 0.5 mg twice/week.

# Patient Treatment Course prior to UCMC: 2007-2013

- Treatment: Cabergoline (or Dostinex) 0.5 mg twice/week - 75% compliant.
  - Regular menses on Cabergoline, not interested in fertility
  - No vision changes
- Side effects: nausea, fatigue, dizziness/LH
- 2013: started intravaginal administration of Cabergoline

	Normal Range	6/2005	9/2009	12/2009	9/2010	8/2013
Prolactin	2.8-29.2 ng/mL	75.6	88.9	97.4	108.3	76.2

# Brain MRI Course:

- Brain MRI 4/2005:
  - **6.5 x 7.4 x 6.6 mm** lesion in L pit gland – not significantly changed from 2004.
- Brain MRI 12/2005:
  - **6 x 5 x 4.8 mm** pituitary microadenoma
- Brain MRI 3/2009:
  - **4.9 mm** low-contrast nodule in L pit gland. No mass effect on optic chiasm or intracavernous extension.
- Brain MRI 12/2010:
  - “slight increase in size but **less than 10 mm**”
- Brain MRI 9/2013:
  - **6 x 7 x 7 mm** pituitary microadenoma. Pituitary stalk is midline. No impingement on optic chiasm.

# Establishes care at UCMC

- 3/2014: Neurology clinic for c/o chronic headache
  - HA q 3-10 days, 10/10 intensity, esp early in AM or late at night.
  - Does not wake her up from sleep.
  - Triggers: stress, lights, noise
  - Assc (+) Sxms: +LH, +dizziness, +blurry vision, +nausea.
- Assessment: HA “likely secondary to pituitary adenoma”
- Plan: Gabapentin 100 mg qhs, Riboflavin
  - -> Provided great relief in headaches
- 6/2014: Endocrinology evaluation

# Review of Systems

- General: **+fatigue, +10 lb wt gain in prev 6 mos, +decreased appetite.** No fever, night sweats.
- Neuro: **+LH,+ chronic HA, +decreased concentration.** Denies seizures, facial asymmetry, speech difficulty, weakness, numbness, confusion
- HEENT: **+blurry vision.** No conjunctival injection with HA or tearing. No hearing loss, hoarseness, dysphagia.
- CV: No chest pain, palpitations.
- Resp: No SOB, cough, wheezing.
- GI: **+nausea.** No vomiting, abdominal pain, constipation, diarrhea.
- GU: No UTI's, urinary frequency, urgency. **+regular menses.**
- Heme/Onc: No swollen glands.
- Skin: No easy bruising/bleeding, no dry skin, hair loss, rash.
- MSK: No joint swelling/pain, edema, muscle pain. **+history of stress fractures at 21 yo when playing basketball.**
- Psych: **+depression sxms, +anxiety, +insomnia, +increased impulsivity.**

# Rest of History

## **PMHx:**

- Prolactin-secreting microadenoma
- Chronic headaches

## **PSgHx:**

- Appendectomy

## **Medications:**

- Cabergoline 0.5 mg 2x/wk
- Gabapentin 100 mg qhs
- Riboflavin

**Allergies:** Penicillin

## **Family Hx:**

- Mother s/p thyroidectomy x 2 for “goiter”
- HTN (mother)
- “Liver Disease” (mother)
- 2 brothers, 1 sister healthy

## **Social Hx:**

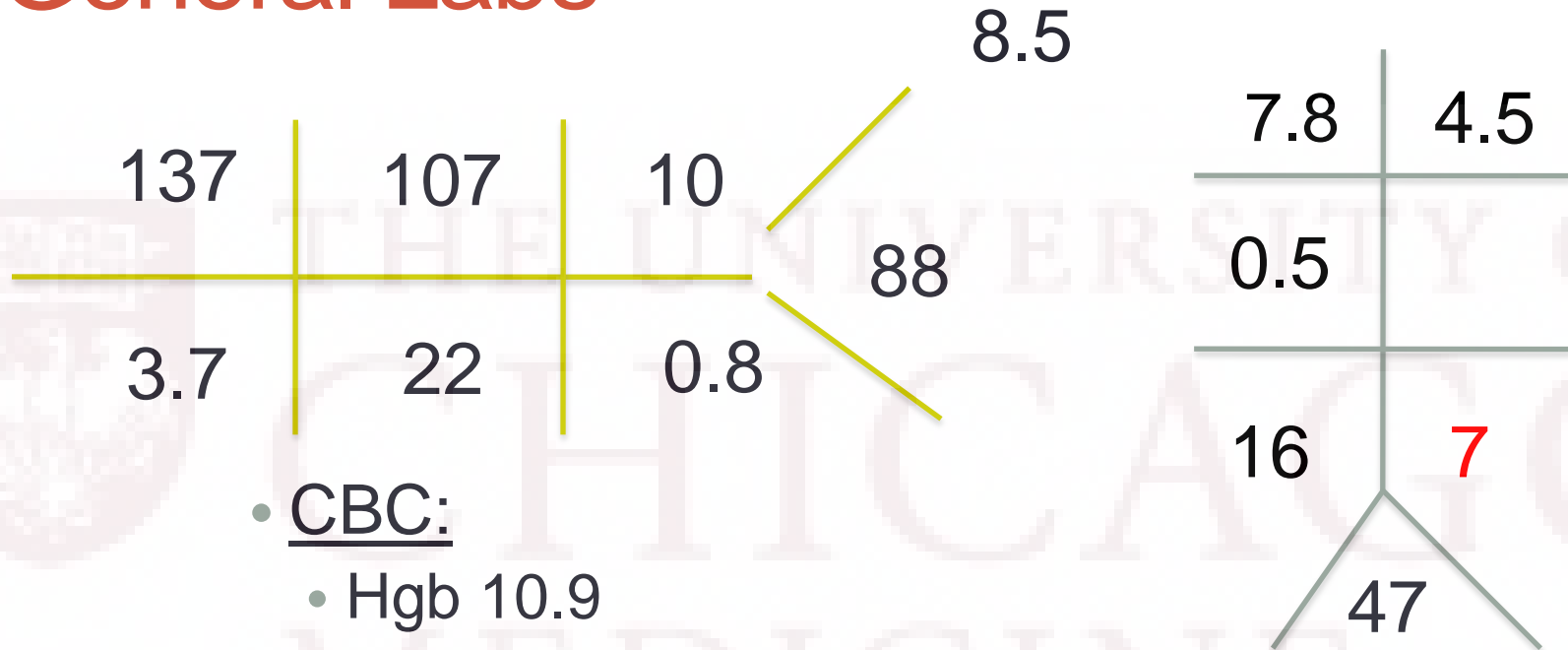
- No tobacco or drug use.
- 2 EtOH drinks/month
- Single, lives alone
- Received training in community counseling but not currently practicing.



# Physical Exam

- Vitals: BP 120/69, P 66, Wt 145 lb, Ht 5'6", BMI 23.4
- General: Well-developed, no distress.
- HEET: Visual fields normal (per ophtho). PERRL, no scleral icterus. Oropharynx clear, mmm.
- Neck: No thyromegaly or thyroid nodules. Supple.
- Chest: Tanner V, **+slight clear discharge with pressure on L breast.** No discharge on R.
- CV: RRR, no murmur.
- Resp: Effort normal, breath sounds normal.
- Abdomen: No distension, soft, non-tender.
- Skin: Warm and dry.
- Neuro: Normal (per neurology).
- Psych: Behavior is normal.

# General Labs



- CBC:

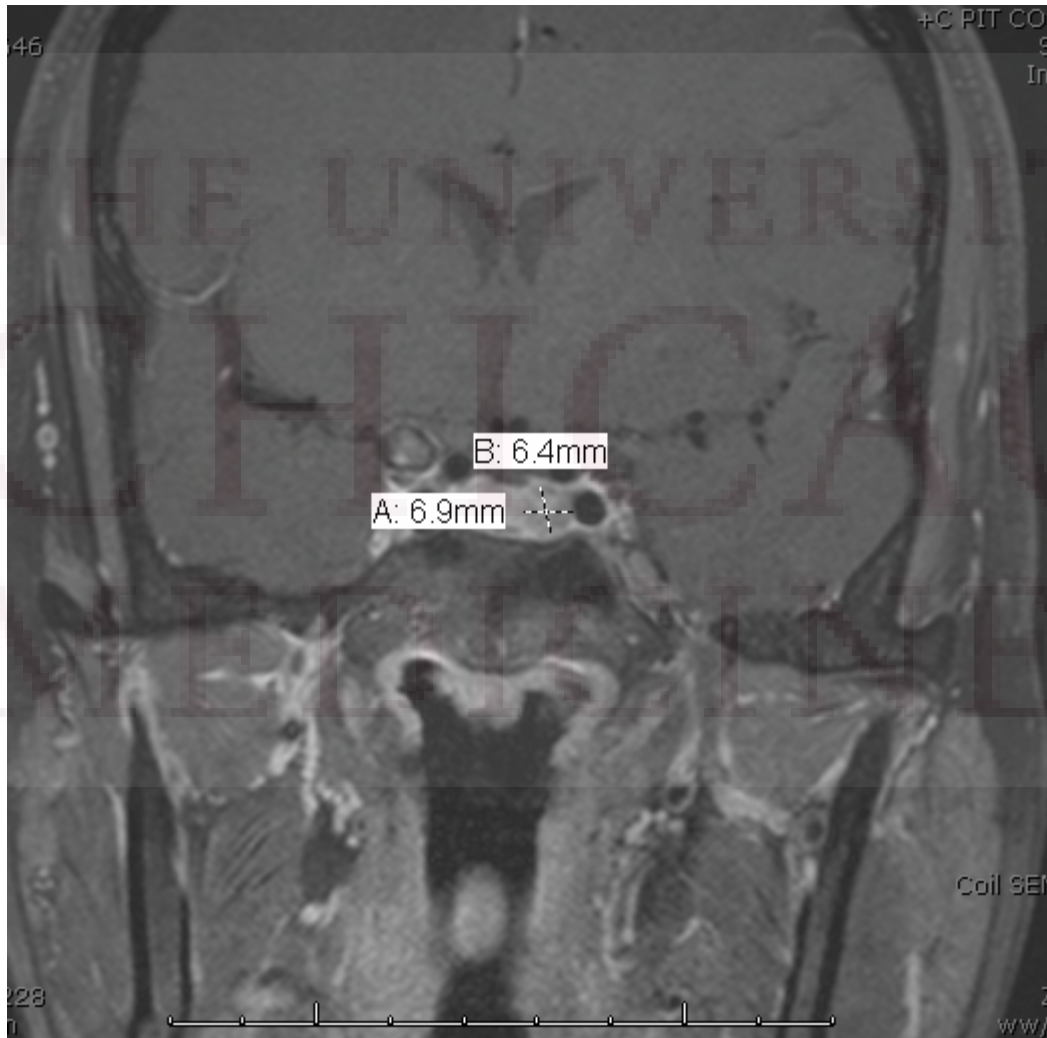
- Hgb 10.9
  - MCV 73
  - WBC 7.1
  - Plt 269
- Urine Pregnancy Test: negative

# Pituitary Evaluation

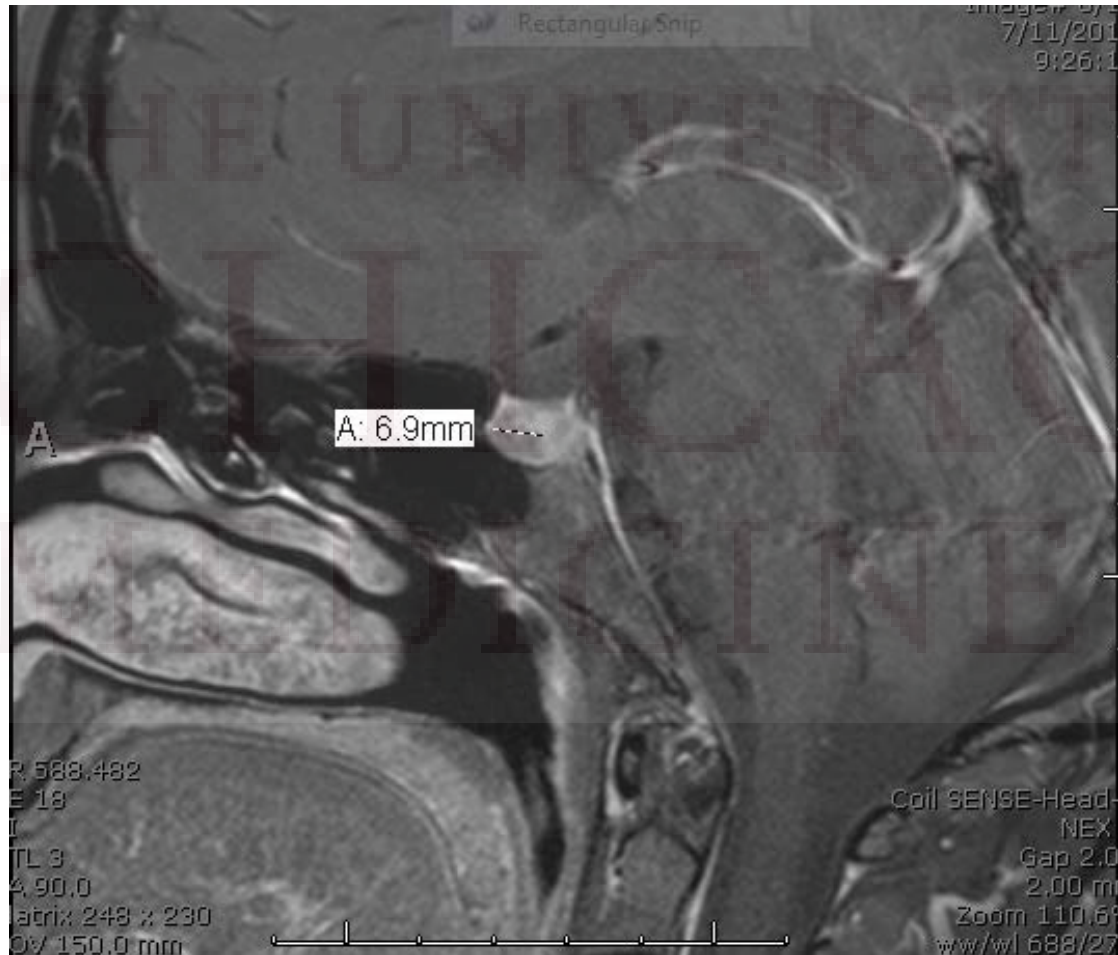
- 9/2009 (OSH):
  - Cortisol 12.4 ug/dL (11:13 AM)
  - TFT's normal
- 8/2013 (OSH):
  - Cortisol 12.8 ug/dL
  - ACTH 21
  - BMP normal
  - TFT's normal
- 6/2014 (UCMC):
  - TSH 1.31 (0.3-4 mcU/mL)
  - Free T4 1.03 (0.9-1.7 ng/dL)

	Normal Range	8/2013	6/2014
Prolactin	2.8-29.2 ng/mL	76.2	207

# MRI Pituitary 7/2014: Coronal View



# MRI Pituitary 7/2014: Sagittal View



# 7/2014 NSGY Evaluation

- Non-compliance with Cabergoline 2/2 to the following possible side effects:
  - Nausea
  - Impulsivity
  - Difficulty concentrating
  - Fatigue -> cannot take before an exam
  - Depression “started with cabergoline”
- Assessment:
  - “Relative surgical indication if her Cabergoline really interferes massively with her quality of life and activities of daily living.”

# Transphenoidal Hypophysectomy 8/2014

- Surgical procedure combined ENT/NSGY
  - Used Medtronic VT fusion navigation system
  - CSF leakage during procedure
  - “”Blue-ish tumor easily identified, soft, separated, easily removed with curette.
- Pathology: Insufficient tissue for diagnosis

# Post-Surgical Course

- POD #1: Dex 4 mg IV q6h, Vancomycin x 24h, Foley for strict is/o's.
- POD #3: Salty taste at back of throat, +serosanguinous drainage on “mustache” dressing. Plan: Clinda x 7 day.
- POD #4: Tm 103.3 F
  - LP performed: WBC 99 (65% PMN), RBC 562, Glucose 51, protein 51
  - Urine cx (+) Pseudomonas. Abx Aztreonam/Vanco/Flagyl.
- POD #5: Neck stiff, +photophobia.
  - Blood Cx (+) E.coli
  - CSF (-) cx.



# Post-Surgical Course

- POD #6: WBC improved, neg bld cx, PICC placed
- POD #7-9: HA and nasal drainage improving.
  - ID rec 3-wk course Cefepime through 9/23.
- POD #12: Patient threatens to leave AMA.
- POD #13: Patient leaves AMA.
  - Presented to South Suburban Hospital for help with PICC line.

# Post-Op Pituitary Assessment:

## Post-Op Day #0:

- Prolactin 94.26 ng/mL
- ACTH 1078 pg/mL
- GH 1.5 ng/mL
- LH 5.5 mIU/mL
- FSH 7 mIU/mL
- Estradiol 20 pg/mL
- TSH 2.68

## Post-Op Day #9 (and 2 days s/p Dex)

- Prolactin 67.86 ng/mL
- ACTH 17.6 pg/mL
- Cortisol 23.5 mcg/dL
- TSH 0.92 mcU/mL
- Free T4 1.4 ng/dL
- T3 64 (normal 80-195)
- No polyuria, no dilute UOP, sodium stable.

Thank You



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