



**EASTERN MAINE
MEDICAL CENTER**
EMHS MEMBER



HEADACHES AND HYPERTENSION: IT'S NOT ALWAYS ALL IN YOUR HEAD

Clinical Conundrum Oral Presentation
7/22/17

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The Case

9 yo M with h/o migraines for 3-4 years presents with 3-4 days of worsening generalized headaches with associated photophobia and several episodes of NBNB emesis. He was seen in both PMD office and walk-in clinic on the 2 days prior to presentation with no reported exam abnormalities. His symptoms persisted, so he presented to the ER.



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Together We're Stronger



Review of Systems

Pertinent Positives

NEURO: +migraine HA x 3-4 yrs,

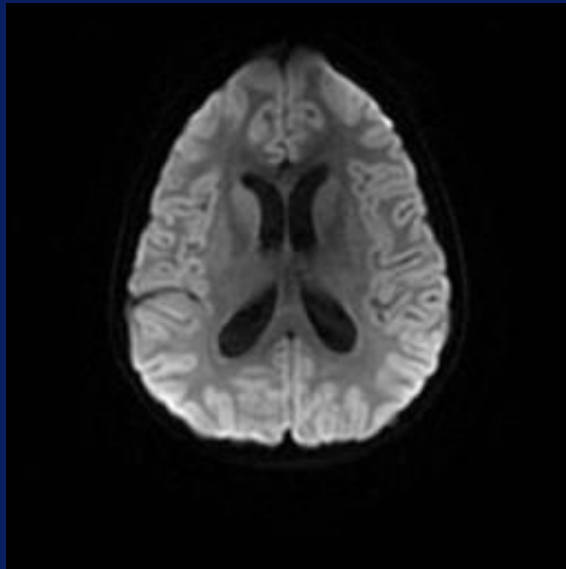
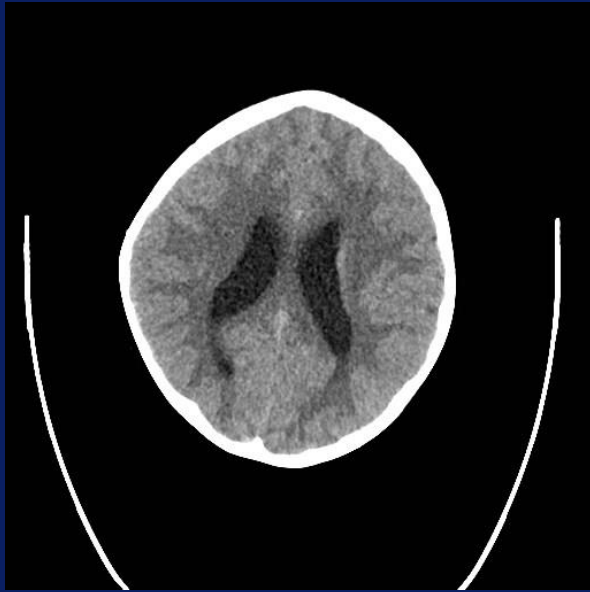
+lightheadedness, +photophobia

GI: +several episodes of NBNB emesis, +nausea

ENDO: polydipsia, polyuria

Emergency Department

- BP max: 212/145 – Labetalol given
- Head CT: hydrocephalus, cerebellitis
- LP performed
- Neurosurgery consulted



Results

CBC: ~~16.6~~
~~15.4~~ ~~401~~
~~45.4~~

Blood Culture pending

CMP: 133 | 86 | 10
2.4 | 28 | 0.39

Ca: 9.4

AST/ALT nl, Alk Phos: 308

CSF: 2 WBC, 68 RBC. HSV 1/2, culture: pending

EKG: QTc 600

Physical Exam

Pertinent Findings

VITALS: P 100, BP 169/103, RR 30

HEENT/NECK: no photophobia, optic disc margins
blurred b/l, no meningismus

ABD: mild TTP over LUQ

NEURO: no acute findings

HOSPITAL COURSE

Hospital Days 1-3

- Third ventriculostomy scheduled
- Neurology consulted
- Urine electrolytes: excessive K⁺ excretion
- Hypokalemia despite IV Potassium repletion

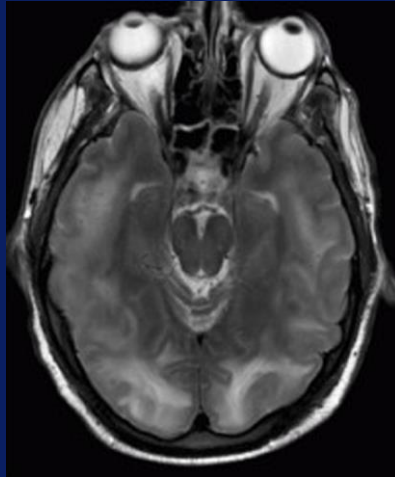
Unifying Diagnosis?

- Malignant Hypertension
- Obstructive Hydrocephalus
- Cerebellitis
- Hypokalemia/Urinary K losses
- Hyponatremia

Posterior Reversible Encephalopathy Syndrome (PRES)

- Clinikoradiographic syndrome
- HA, seizures, encephalopathy, vision changes
- Characteristic imaging findings due to edema

PRES



SO....

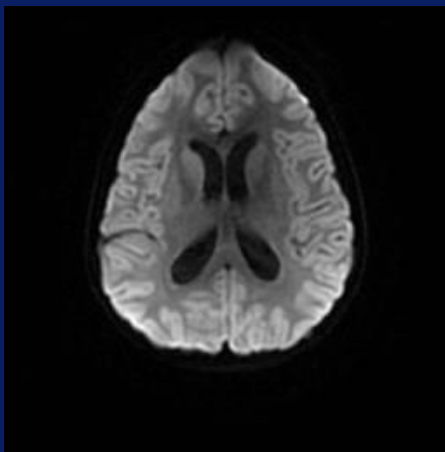


Obstructive Hydrocephalus \rightleftharpoons Hypertension

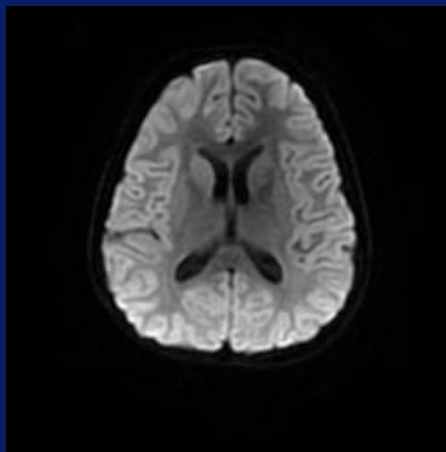
Hospital Days 3-5

- Retroperitoneal ultrasound
- Endocrinology consult
- Repeat Brain MRI: improving
- Continued Hyponatremia

Hospital Day 1



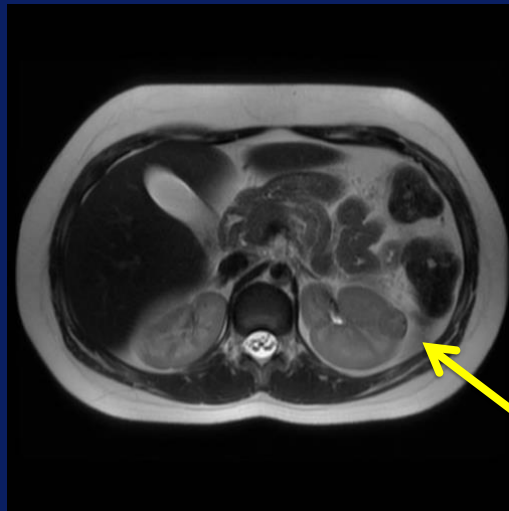
Hospital Day 5



Hospital Day 6

- **Aldosterone: 59.4** (upper limit of nl 4.4)
- MRI/MRA Abd: Left renal mass

Abdominal MRI



Primary Hyperaldosteronism

VS

Secondary elevation
(renin secreting tumor)

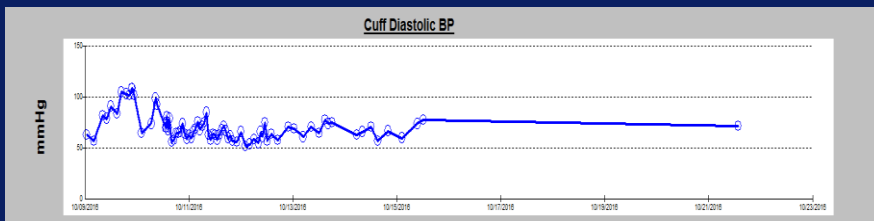
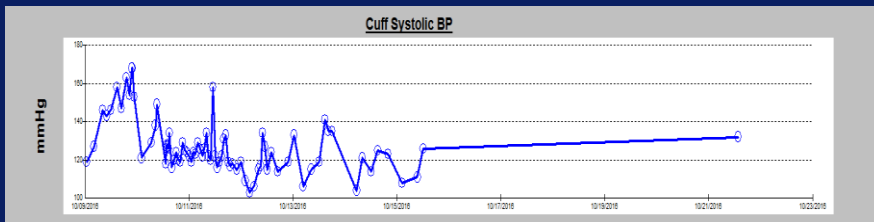
Hospital Day 8

Renin level:

33 (normal **0.5-5.9**)

RENAL JUXTAGLOMERULAR CELL APPARATUS TUMOR





Reninoma

- Overall ~ 90-100 cases, roughly 1/5 are children or adolescents
- Female predominance
- Recurrence: none reported
- Metastatic disease: two adult cases

Thank you to all who contributed:

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Questions?