CPS' Bimonthly Highlights

MARCH EDITION

ATTENTION PLEASE!

This is an **interactive magazine**! Click to listen to the episodes, visit website pages and go to specific sections of the content.

Dx

EDITORIAL

Hello Clinical Problem Solver! Welcome aboard the CP Solvers ship, where learning isn't a lonely island but a vibrant community expedition. We're thrilled to set sail with our **Third Edition of the Bimonthly Highlights magazine**, packed with insights from our VMRs and podcast.

Imagine this magazine not as a dull tome, but a lively hub of spaced reviews, interactive goodies, and eye-catching aesthetics designed to tickle your curiosity. Like Maya Angelou said, *creativity is limitless*, and our magazine aims to prove it, sparking endless inspiration and redefining learning norms.

In this edition, we're diving into some seriously juicy topics! We've got the lowdown on pituitary involvement with the VMR "SOB and black tarry stools," scurvy overview with the Recap VMR "when life gives you lemons... eat them!", hypoglycemia leading to an interesting dx with the Subspecialty VMR, approach to worsening renal function with the Main Podcast Episode, and to top it off, a mind-blowing Recap Quiz on the latest magazine issue! It's hot off the press and totally unmissable.

Lastly, to our esteemed global community and the brilliant minds that comprise our team, we extend our deepest gratitude. Your dedication, creativity, and unwavering commitment have infused each edition with the vibrancy of a technicolor dream. Here's to the harmonious symphony of brainpower and friendship that sets the stage for our endless adventure together!

Much Love Always,

Laura Araujo
Chief Editor

VMR

SOB and black tarry stools - February 29

LIVE

Join us live!

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VMR FEB 29

50-years-old woman presenting with

- 3 months of worsening abdominal distention and SOB
- 3 months of recurrent fevers
- 3 months of polyuria and polydipsia
- 2 weeks of black tarry stools
- 1 day of yellow discoloration of eyes

HOW TO MAKE PROGRESS WITH THIS MANY POSITIVE FINDINGS? ALEC AND RABIH SHARE 3 TIPS

Reconcile with physical exam, eg. look for hypoxia to confirm SOB
Focus on morbid findings, like dyspnea
Focus on specific findings, like jaundice

Physical exam showed:
Fever, pallor, and icteric sclera
Cervical **LAD** and **splenomegaly**
Hypoxia and pulmonary crackles
Diffuse maculopapular/petechial rash

What can we confidently say?
This is a subacute inflammatory disease with pulmonary and reticuloendothelial involvement

Note how black tarry stools falls to the background

Our case presenter also shared that the polydipsia and polyuria was due to central diabetes insipidus, diagnosed recently

This translates in pituitary involvement

We still need to clarify the following:
Jaundice: heme or hepatic?
Rash: petechial vs skin problems?
We need to look for answers in the labs

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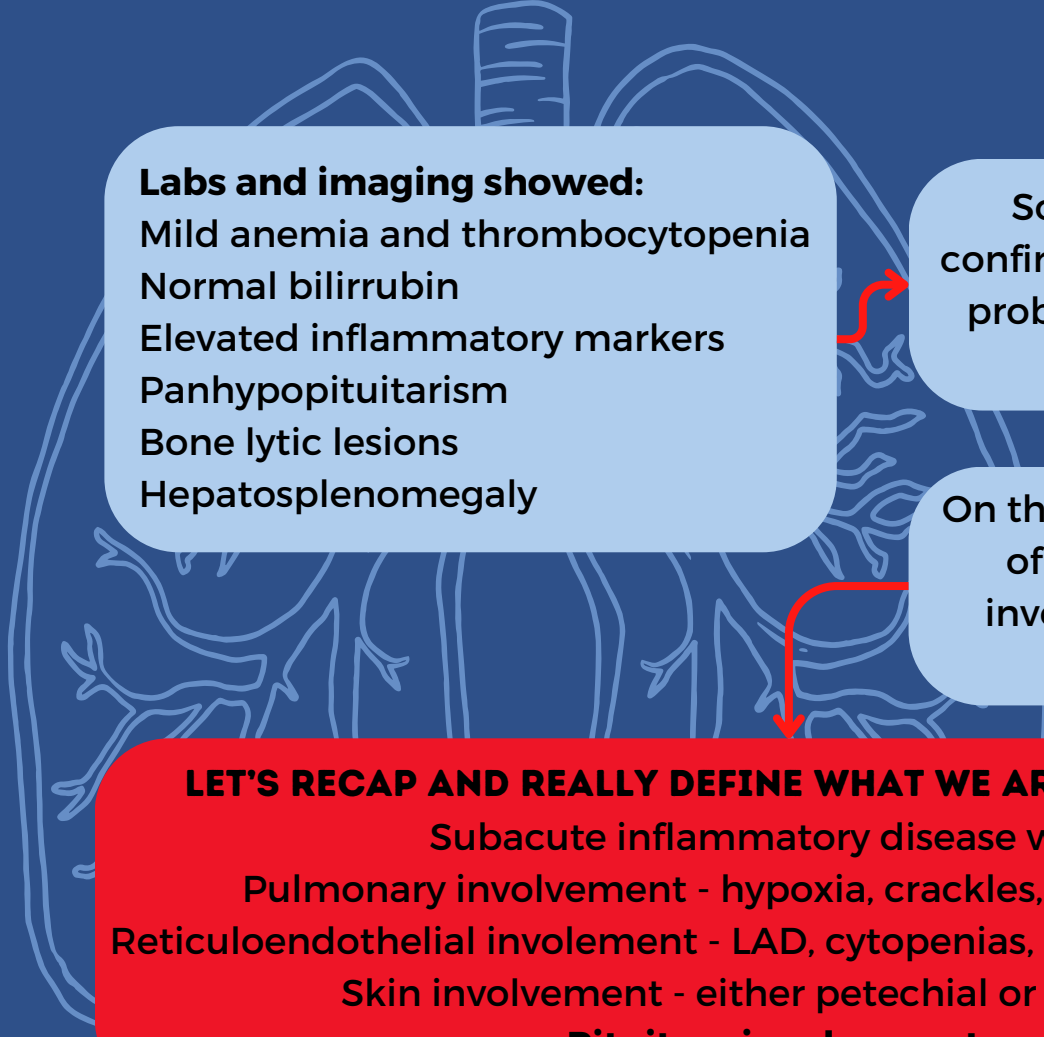

Labs and imaging showed:
Mild anemia and thrombocytopenia
Normal bilirrubin
Elevated inflammatory markers
Panhypopituitarism
Bone lytic lesions
Hepatosplenomegaly

So the jaundice is not confirmed. This decreases the probability of this being an important finding.

On the other hand, evidence of reticuloendothelial involvement only grows stronger.

LET'S RECAP AND REALLY DEFINE WHAT WE ARE LOOKING FOR:
Subacute inflammatory disease with:
Pulmonary involvement - hypoxia, crackles, consolidation
Reticuloendothelial involement - LAD, cytopenias, hepatosplenomegaly
Skin involvement - either petechial or true skin
Pituitary involvement

It's helpful to look through the lenses of panhypopituitarism, as this has the narrowest differential diagnosis:
Malignancy, infiltrative diseases or infections

If you are very familiar with the illness scripts for those diseases, you should already have a favorite.
However, we need to confirm the diagnosis.
TISSUE IS THE ISSUE.

Alright, place your bets and head over to YouTube to find out the answer to this case!

And if you want to learn more about infiltrative diseases, check out this amazing thread by Andrew, a CPSolvers member

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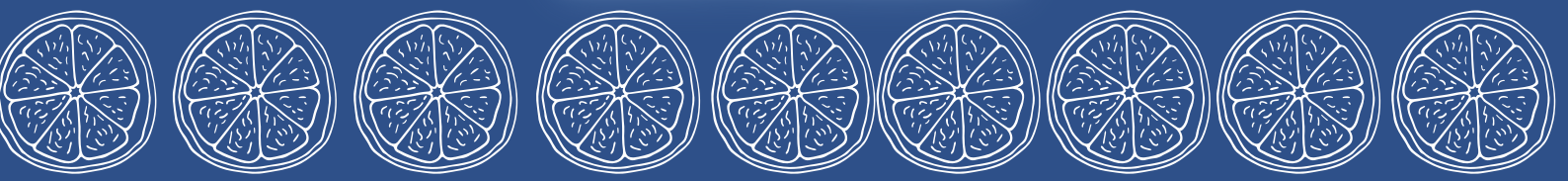
RECAP VMR

LIVE

Join us live!

WHEN LIFE GIVES YOU LEMONS...

EAT THEM!



37YF WITH PROGRESSIVE DYSPNEA

2.5 months ago:
LE bruising and swelling

Negative doppler

2 months ago:
dyspnea on exertion, IDA

EGD and Colonoscopy
Negatives

1.5 weeks ago: menorrhagia
and refractory IDA

5 IV infusions of IV iron +
IUD Mirena placement

+ PULMONARY HYPERTENSION + PURPURA + HEMARTHROSIS

Case presenter: **Mark Heslin**
Discussants: **R&R**
Recapped by: **Francisco Alexandrino**

LIVE
Join us live!

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CONNECTING THE DOTS...

BLEEDING

PURPURA

LABS: NL platelets and coagulations factors

THROMBUS

HEMOSTATIC DISORDER WITH NL PLATELETS AND COAGULATION

VWD/PLATELET QUALITATIVE DEFECT

FACTOR XIII DEFICIENCY

DISORDER OF VASCULAR INTEGRITY

DISORDER OF FIBRINOLYSIS

DERMATOSCOPY +

PERIFOLLICULAR HEMORRHAGE WITH CORKSCREW HAIR

DIAGNOSIS

???

LIVE

Join us live!

Case presenter: **Mark Heslin**

Discussants: **R&R**

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VITAMIN C

COLLAGEN SYNTHESIS

PROMOTES IRON ABSORPTION

↑ NO SYNTHETASE ACTIVITY

SCURVY

DISORDER OF VASCULAR INTEGRITY -> BLEEDING

IRON DEFICIENCY ANEMIA

PULMONARY HYPERTENSION -> DYSPNEA

HAVE YOU SEEN VITAMIN C DEFICIENCY IN THIS PRESENTATION BEFORE?

LIVE

Join us live!

Case presenter: **Mark Heslin**

Discussants: **R&R**

Recapped by: **Francisco Alexandrino**

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RAFAEL MEDINA

Subspecialty VMR

Endocrinology

Case presenter: Dr. Robert Weber

Case discussants: Maddy Conte & Kirtan Patolia

Join us LIVE every Monday

Highlighted by Hui Ting Ruan

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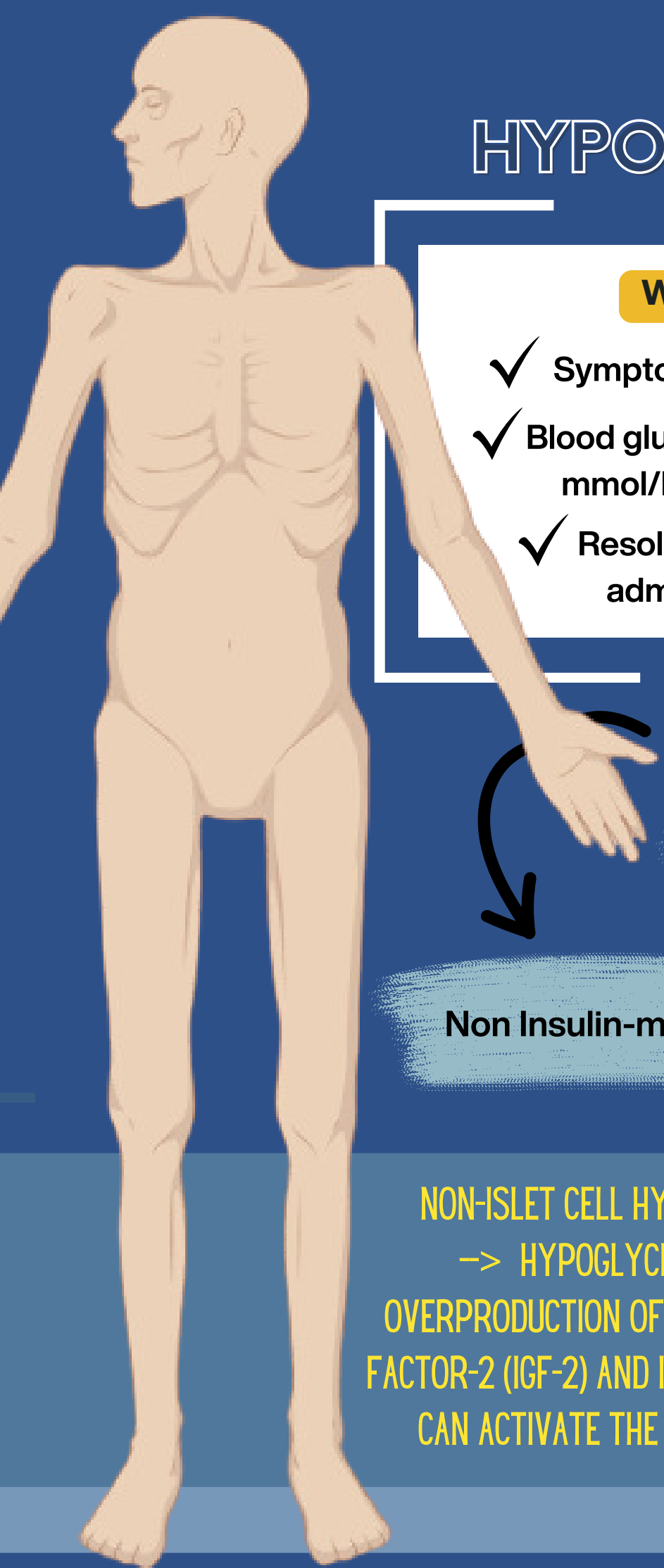
HYPOGLYCEMIA



WHIPPLE TRIAD:

- ✓ Symptoms of hypoglycemia
- ✓ Blood glucose of < 55 mg/dL (< 3.0 mmol/L) during the symptoms
- ✓ Resolution of symptoms with administration of glucose

Insulin-mediated

Non Insulin-mediated

NON-ISLET CELL HYPOGLYCEMIA (NICH) -> HYPOGLYCEMIA DUE TO THE OVERPRODUCTION OF INSULIN-LIKE GROWTH FACTOR-2 (IGF-2) AND ITS PRECURSORS WHICH CAN ACTIVATE THE INSULIN RECEPTOR.

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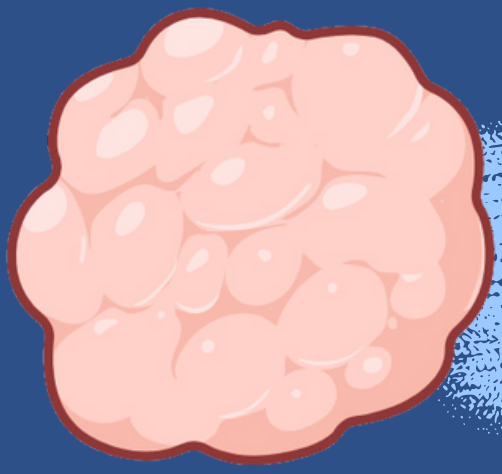
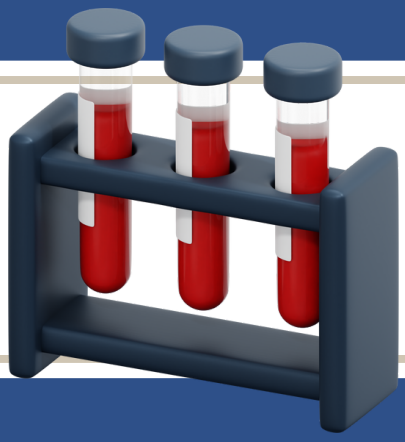
DOEGE–POTTER SYNDROME



Caused by tumor secretion of IGF-II. The Doege–Potter syndrome occurs in less than 5% of patients with solitary fibrous tumors, primarily with large peritoneal or pleural tumors

DIAGNOSTIC TESTING



A ratio of more than 3:1 is suggestive of tumor-mediated production of IGF-II

A ratio of more than 10:1 is considered to be diagnostic

NEJM - Review Article

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WATCH NOW

Cream of the crop podcast episode

Spaced Learning Series

Episode: #321

Discussants:

#Anna Fretz #Kirtan Patolia #Priyanka Athavale

Highlighted by:

#Kuchal Agadi

LIVE

Join us live!

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69 yrs M presents with acute worsening Renal function and Foamy urine

- **Eyesight going rogue**
- **Shedding 20 lbs in 2 years** (*bye, old jeans!*)
- **Scratchy plaques popping up on hands and body**

PMH:

- Diabetes with eye issues
- High blood pressure
- Heart disease with a shiny new stent
- High cholesterol

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Give those bubbles a little hover for some sneaky clues!

MEDICATION HX
Albuterol, Allopurinol, Atorvastatin, Clopidogrel, Metformin, Omeprazole, Olmesartan

PHYSICAL
Poor dentition, Scabbed erythematous plaques on LL

- Which of these drugs are nephrotoxic?
- How? (Tweet your answer! Tag us at @cpsolvers)

ALLERGIES
Amlodipine, Losartan , Aspirin

IN CKD DUE TO HTN, WILL THE KIDNEY BE ENLARGED OR SMALLER
Smaller

VITALS
T:99.1F, BP:160/80mmhg

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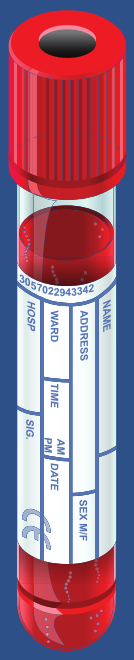
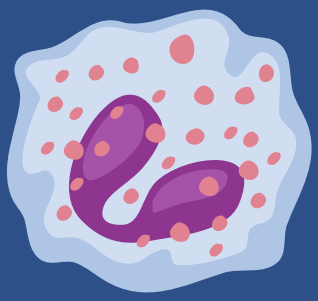


LABS?



WBC: 7.9

Eosinophils: 1.7

Serum Protein: 1.2

UACR: 217mg/gm

UPCR: 1797mg/dl

IMAGING?

- Renal USG: L hydronephrosis
- CT Abd/ Pelvis: Confirmed USG findings, Spleenoomegaly
- SPEP: Large Gamma Globulin Fraction

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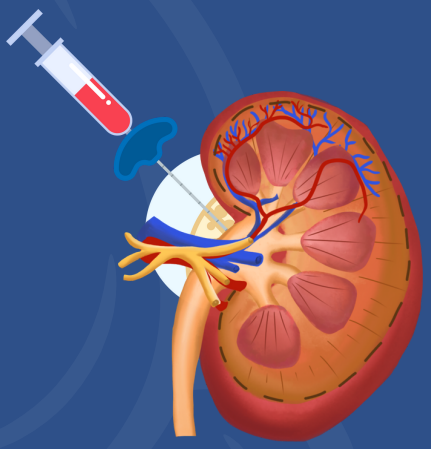
RENAL BIOPSY:

Diffuse Sclerosing Tubulointerstitial Nephritis with numerous IgG and Positive Plasma Cells



PROBLEM REPRESENTATION?

Elderly male with HTN, DM, post Coronary Artery stent complaints of foamy urine. LABS significant for eosinophilia, Proteinuria, increased Gamma globulin on SPEP, and Diffuse sclerosing TIN on Renal Biopsy.

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Causes of Eosinophilia?

Spleenomegaly

Tweet your response.Tag us @Cpsolvers

UACR?
UPCR?

AKI?

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WHAT'S THE VERDICT?

~~MGUS?~~
~~VEXAS?~~
~~MULTIPLE MYELOMA?~~
~~AMYLOIDOSIS ?~~

IgG4 Disease:
NO FEVER
CRP Normal

Chronic Infiltrative Dz

Atopy

Vasculitis

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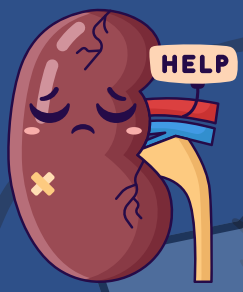
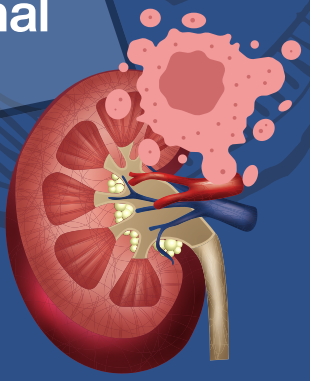
BONUS TIME!

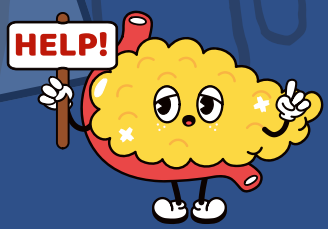


Can Nephrotic Syndrome trigger AKI?

Three Ways Malignancy causes Renal Ilnjury



Type of pancreatitis seen in IgG4 Disease



Tweet us your reply @CPSolvers

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GET READY FOR THE...

RECAP Quiz!

Review the last edition here

CPS' Bimonthly Highlights

RECAP Quiz!

9 year old male presents with inability to grasp objects with both hands for the past 2 days. Since this morning, he has dropped everything at home and had to be helped with ADLs, such as bathing. Parents also report slurred speech.

- PMH: Recurrent sore throats. Had tonsillectomy + adenoidectomy 2y ago.
- His **oxygen saturation was 98% on room air** and neurological exam revealed involuntary movements, which consisted in Michael Jackson's-like movements and a pronator drift.
- Echo noted mitral stenosis and MRI of the brain noted hyperintense lesions on basal ganglia

RECAP Quiz!

JOT DOWN YOUR THOUGHTS...

- 1. What is your **differential diagnosis** based on this overall clinical presentation?
- 2. What is your **approach** to involuntary movements in a child?
- 3. What do you make of the **recurrent sore throat**? How can we, if possible, tie that in with the current presentation?

Share your answers with us on Social Media using
#CPSmagazinequiz

RECAP Quiz!

4. WHAT IS THE MOST LIKELY DIAGNOSIS FOR THIS PATIENT?

A. Pilocytic astrocytoma
B. Paraneoplastic cerebellar degeneration
C. Early onset-Wilson's disease
D. Huntington's chorea
E. Acute rheumatic fever
F. Friedreich's ataxia

Share your answers with us on Social Media using
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RECAP Quiz!

5. WHAT DO WE KNOW ABOUT SCHMAHMANN'S SYNDROME?

A. It is a disconnection syndrome
B. It consists in optic ataxia, ocular apraxia and simultagnosia
C. It presents with the alien-limb sign
D. It was first described in 1998 as cerebellar cognitive affective syndrome (CCAS)
E. It is a motor manifestation of cerebellar dysfunction

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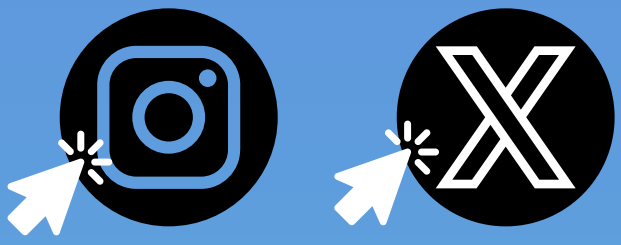
RECAP Quiz!

CHECK OUR



FOR THE ANSWERS!

Share your answers with us on Social Media using

#CPSmagazinequiz

THANK YOU

For spending your time with us!

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