

Clinico-Pathologic Conference: May 4th, 2021, 8 am – 9 am

Chief Residents: Samantha Simpson, MD, and James Rudloff, MD

Chief Complaint: arthritis, rash, weight loss

Initial Presentation to the PMD

- 15-year-old male with a history of mild intermittent asthma and depression presents for three months of migratory arthritis, rash, and weight loss.
- Initial symptoms of conjunctivitis and hematuria beginning three months ago developed into the now primary symptoms of arthritis and rash.
- Treated for arthritis with steroids and briefly with methotrexate. Received valacyclovir for 10 days when the rash initially appeared following starting MTX
- He comes into the CCHMC ED for worsening symptoms, including now 30-pound weight loss and proximal muscle weakness with difficulty standing.

PMH/PSH/Meds/Allergies

PMH:

-Mild intermittent asthma

-Depression – never took prescribed Prozac. Denies SI. Never admitted. No SI attempts.

PSH: foot arthrodesis three years ago.

Meds: Prednisone tablets

Allergies: NKDA

IUTD

Family History

No significant family history.

Social History

Lives with mom and stepdad. Sexually active one female partner, uses protection. Never positive for STDs in past. Smokes marijuana, more recently for pain relief.

ED Physical Exam

- **Vitals:** Temp 36.7C HR 72 RR 20 BP 121/85 SpO2 98% **Weight** 105.3 kg **Height** 181 cm
- **General:** Normal appearance, no acute distress.
- **Skin:** Erythematous papular rash spread at multiple sites, including left leg, chest, face. Ulceration, excoriation, and crusting seen at various stages.
- **HEENT:** Normal
- **Eyes:** EOMI, PERRLA
- **Lungs:** Comfortable work of breathing, normal breath sounds, no focal abnormal sounds.
- **Cardiac:** Normal rate and rhythm, normal heart sounds, no murmur.
- **Abdomen:** Soft, no tenderness or guarding
- **GU:** normal male external genitalia aside from rash.
- **Musculoskeletal/Ext:** Swelling of bilateral knees, left 5th digit, left 2nd toe.
- **Neurological:** Proximal muscle weakness bilaterally. No focal deficits present. Alert and oriented to person, place, time.



ED Workup				Hospital Course (Day 1)			
CBC		GENERAL CHEMISTRY		GENERAL IMMUNOLOGY			
WBC	19.33	SODIUM LEVEL	137	ANA PATTERN	NA *	ANTI DNASE B	3,260 * ▲
RBC	3.83	POTASSIUM LEVEL	4.1	ANA TITER	NA *	ASO	6,470.0 ▲
HGB	10.2	CHLORIDE LEVEL	104	CYT NEUT AB	<1:20 *	CHLAMYDIA DNA	Negative *
HCT	32.7	CO2 LEVEL	25	IGA	229.0	GC DNA	Negative *
MCV LEVEL	85.4	BUN	19	IGG	2,510 ▲	STOOL	
MCH LEVEL	26.6	CREATININE LEVEL	0.52	IGM	85	FECAL CALPROTECTIN	6 *
MCHC LEVEL	31.2	ANION GAP	8	C3	137.0	IGA	229.0
RDW	18.4	GLUCOSE LEVEL	115 ▲	C4	20.7	IGG	2,510 ▲
PLATELET	479	CALCIUM	9.2	CRP ULTRASENSITIVE	14.400 ▲	IGM	85
MPV	8.9	TOTAL PROTEIN LEVEL	7.9	JO-1 ANTIBODY	Negative	C3	137.0
NRBCAB	0.00	ALBUMIN LEVEL	2.1 ▼	LA(SSB)	Negative	C4	20.7
DIFF		GLOBULIN	5.8	RO(SSA)	Negative	T4 FREE	0.94
SEGS	89.2	A/G RATIO	0 ▼	RNP	Negative	TSH WITH REFLEX TO...	0.291 ▼
LYMPHS	5.7	ALT	94 ▲	SM	Negative	SARS-CoV-2 (COVID-19)	Negative *
MONOCYTE	3.4	AST	35	OTHER			
EOSINOPHIL	0.1	BILIRUBIN TOTAL	0.3	HLA SP AG	Positive * !		
BASOPHILS	0.2	BILI DIRECT		Comment:		INTERPRETIVE INFORMATION: HLA-B27	
IMMATURE GRANULOCY...	1.4	ALK PHOS	110	Hospital Course (Day 2-5)			
COAG STUDIES		U CHEM		<ul style="list-style-type: none"> CXR: Normal CXR Normal renal ultrasound, including the bladder Echo: Normal cardiac anatomy and function. Skin biopsy obtained, results are pending. Initial read of the urinalysis shows an abundance of dysmorphic RBCs, suggestive of glomerular pathology. The initial biopsy was reassuring against any signs of glomerulonephritis or intrinsic renal pathology. Final biopsy stains are pending. 			
NEUTROPHIL ABSOLUTE	17.26	U APPEARANCE	Hazy !	Findings from a skin biopsy and final stains from the kidney biopsy are pending. The findings from the skin biopsy confirmed the final diagnosis.			
LYMPH ABSOLUTE	1.11	U COLOR	Amber	What is your <u>final diagnosis</u> and what findings/tests support this diagnosis?			
MONO ABSOLUTE	0.65	U PH	6.0				
EOSINOPHIL ABS	0.01	U PROTEIN	100 !				
BASO ABSOLUTE	0.03	U BLOOD	Large !				
IMMATURE GRAN ABS	0.27	U GLUCOSE	Negative				
AUTOMATED NRBC PER...	0.0	U KETONES	Negative *				
		U BILI	Negative				
		U NITRITE	Negative				
		U UROBILINOGEN	Negative				
		U LEUKOCYTE ESTER	Trace !				
		SPECIFIC GRAVITY REF	1.033 !				
		J MICRO					
		WBC/HPF, URINE	15-19 !				
		RBC/HPF, URINE	30-50 !				
		SQ EPI, URINE	1-2 !				
		MUCOUS, URINE	3+ !				
		BACTERIA, URINE	1+ !				
HEMATOLOGY MISC							
SED RATE	84 ▲						
CRP	17.80 * ▲						
CARDIAC CHEMISTRY							
CPK	17 ▼						
LDH		163					
EKG: Sinus rhythm, normal EKG ED Care/Disposition: Admitted for further workup.							

Please submit your answers via the QR code shown below.

CLINICO-PATHOLOGIC CASE GRAND ROUNDS

May 4th, 2021

Name: _____

Email: _____

Level of Training/Current Position: _____

What test confirmed the diagnosis? _____

What is your final diagnosis? _____

I had prior knowledge about this case (circle one):

Yes No

