Case

Leslie Stewart MD
ID Fellow (Univ. of Penn.)

- 70’s yo male with a history of IPF s/p R SLT 2017 (CMV D+/R+, EBV +/+)
  - empirically on vanc/cefepime/metronidazole then changed to cefazolin when donor swab cultures with MSSA
- 2 weeks post transplant: PNA: treated with vanc/pip-tazo

- 4 weeks post Tx: started complaining of R elbow pain, was still on vanc/pip-tazo
- Seen by rheum:
  - R olecranon bursa with swelling, erythema, warmth and some mild tenderness. No pain with elbow motion.
  - Olecranon bursa:
    - 1cc cloudy yellow fluid
    - 13K WBC, no crystals
    - Gram stain: No bacteria. Moderate PMNs
    - Routine, fungal, AFB cultures NG
- Was continued on vancomycin with some improvement

- Continued having pain
- Had xray which showed R elbow effusion
- Rheum tapped elbow joint
  - 6cc of cloudy fluid aspirated
  - 41K WBC, no crystals
  - Gram stain: no bacteria, many WBCs
  - Routine, fungal, AFB cultures NG

Physical Exam

- BP 96/65, HR 87, Afebrile, RR 18, SpO2 99 %
- General: NAD, well-appearing
- HEENT: OP clear
- Neck: No cervical LAD
- Chest: RRR, normal S1 and S2, no m/r/g
- Lungs: Crackles L base
- Abd: Soft, NT, ND, +BS
- Extrem: No edema b/l
- **MSK: R elbow with olecranon bursa mildly warm and TTP, + erythema. ROM limited**
- Skin: No rash

History

- SH:
  - Born in Portugal. Moved to US age 16.
  - Worked as a mechanic at the airport.
  - No pets.
  - Currently lives in N Jersey.
  - Last traveled to Caribbean (cruise) in 2016.
  - Used to garden but not for at least the past 9 mo.
- PMH:
  - BPH, HTN, GERD
- Medications
  - TMP-sulfa DS M,W,F
  - Valganciclovir
  - Tacrolimus 8mg BD
  - Prednisone 25mg daily
  - Mycophenolate mofetil 500mg BD

Labs

Lab	Units	0604	0457	0500
WBC	THO/uL	16.1*	15.6*	15.6*
HEMOGLOBIN	g/dL	8.1*	8.9*	9.0*
PLATELETS	THO/uL	513*	545*	535*

Results from last 7 days

Lab	Units	0604	0457	0659
SODIUM	mmol/L	144	144	144
POTASSIUM	mmol/L	5.2*	5.3*	5.5*
CARBON DIOXIDE	mmol/L	27	30	28
UREA NITROGEN	mg/dL	51*	53*	47*
CREATININE	mg/dL	1.13	1.20	1.04
CALCIUM	mg/dL	8.9	9.1	9.0
GLUCOSE	mg/dL	108*	105*	102*

1. Olecranon bursitis.

2. Osteoarthritis of the elbow.

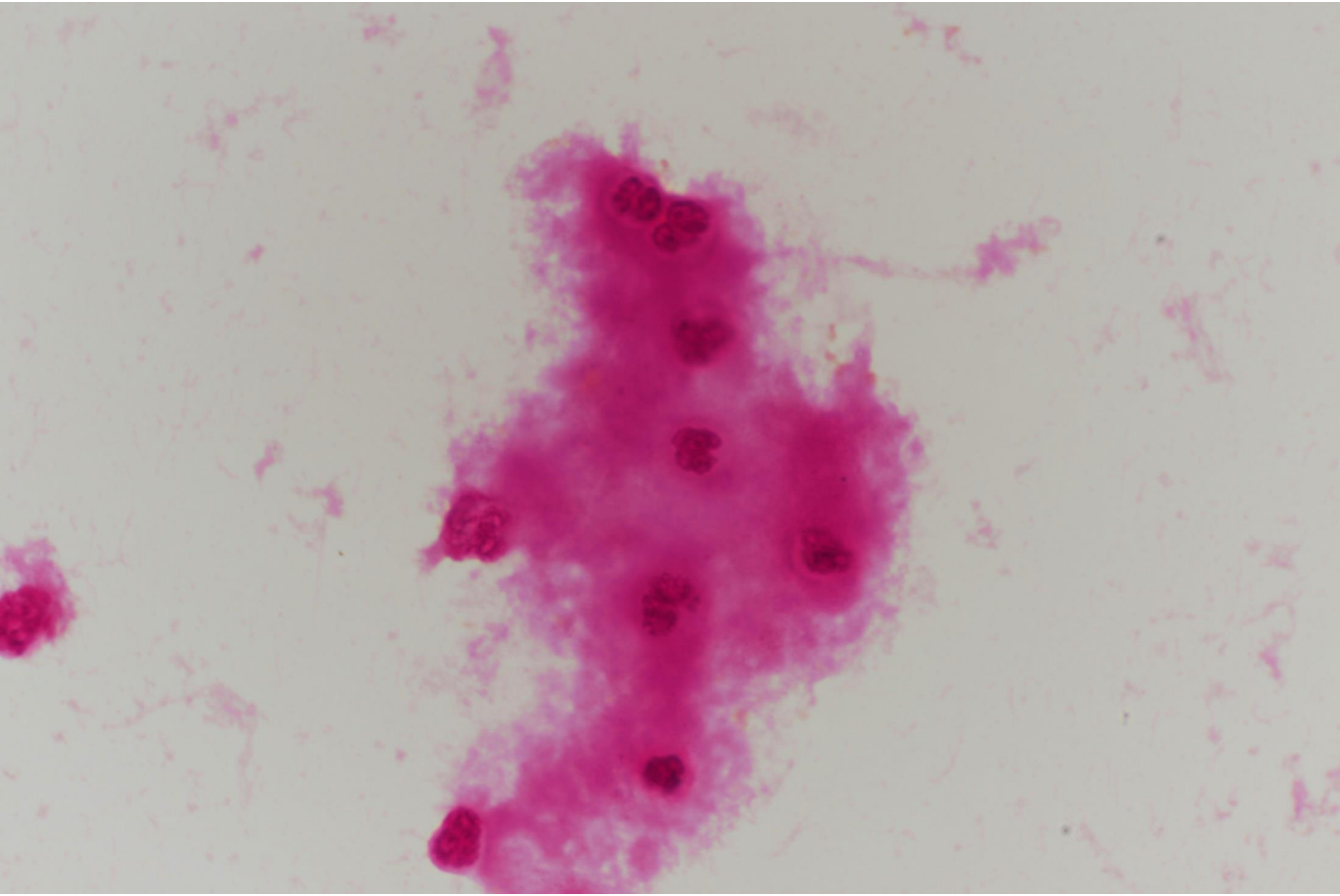
3. Large joint effusion which is nonspecific and may be related to degenerative arthritis, however septic arthritis is not excluded.

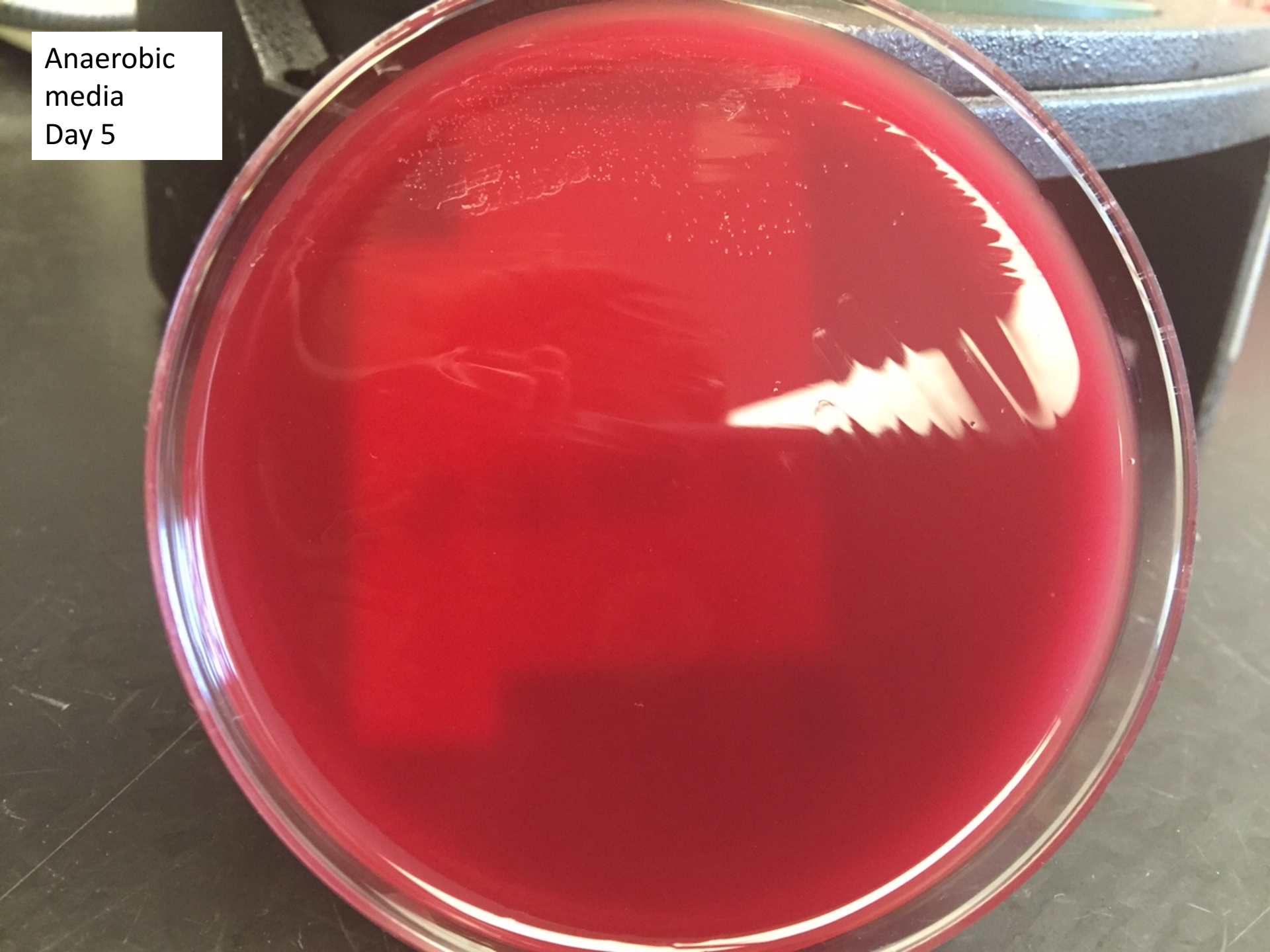
- Differential?
- Management?

- Washout was recommended at the time by ID team, but patient declined
- Was given trial course of indomethacin with improvement in pain
- Vancomycin was stopped and was discharged

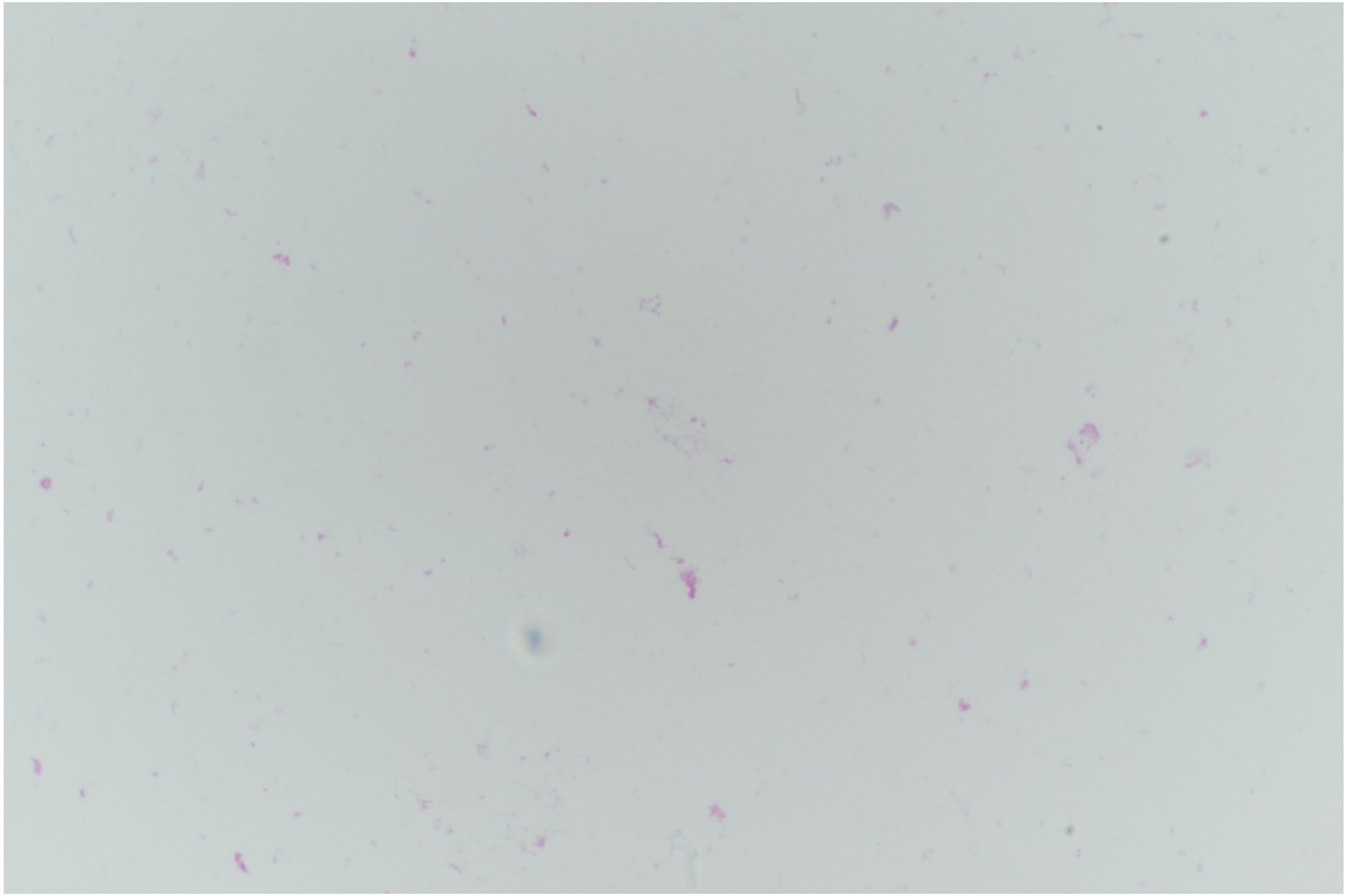
- Readmitted 8 weeks after transplant
- Had 2cc cloudy white/yellow fluid aspirated- no crystals noted, WBC 75k
- Taken to OR for washout

Primary gram stain

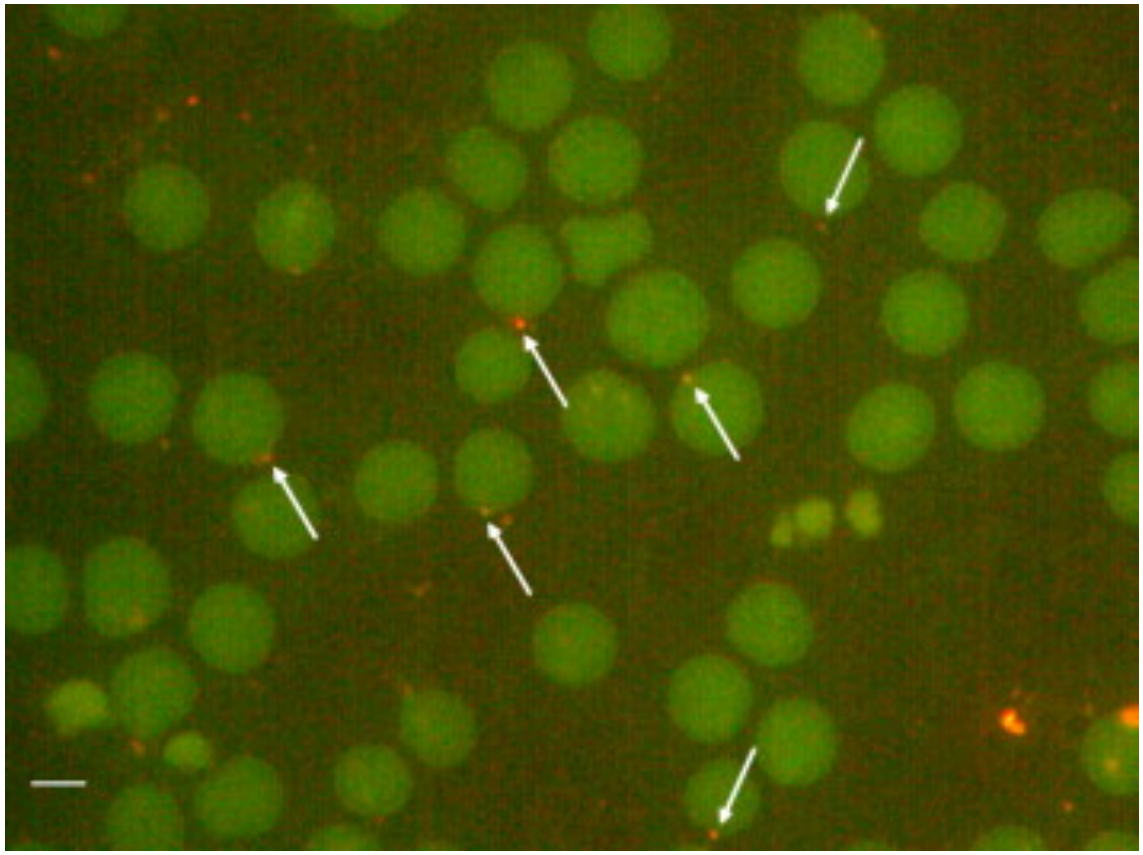



Anaerobic
media
Day 5

Gram stain of the colony



Acridine orange stain



- Culture: Moderate *Mycoplasma hominis* Identification Performed By 16S rDNA Analysis.

- Was discharged on doxycycline
- Admitted for rejection
- Had significant nausea/vomiting
- Changed to levofloxacin

Mycoplasma hominis

- Common commensal
- Genitourinary tract infections
- Neonatal infections
- Disseminated disease

Mycoplasma hominis Septic Arthritis: Two Case Reports and Review

Louis M. Luttrell, Souha S. Kanj, G. Ralph Corey, Robert E. Lins, Robert J. Spinner, William J. Mallon, and Daniel J. Sexton

From the Department of Medicine and the Division of Orthopaedic Surgery, Duke University Medical Center, Durham, North Carolina

Table 1. Summary of data from reported cases of *M. hominis* septic arthritis.

Case no. [reference]	Age (y)/ sex	Site(s) of isolation	Predisposing factor(s)	Antibiotic therapy		Outcome
				Drug	Duration	
[PR]	67/F	Knee*	Epidural abscess, malnutrition, diabetes mellitus, paraplegia	Nafcillin, doxycycline	6 w 10 d	Died during therapy
[PR]	62/M	Shoulder	Chronic prostatitis, shoulder joint prosthesis	Doxycycline	6 w	Infection resolved; retained prosthesis
1 [18]	17/F	Hip, blood	Postpartum	NS	NS	NS
2 [19]	23/F	Knee	Postpartum, retained placenta	Tetracycline	6 w	Resolved
3 [20, 21]	40/F	Hip, blood	Postpartum	Doxycycline	NS	NS
4 [22]	45/F	Lumbar spine, paraspinal abscess	Recent hysterectomy, L5/S1 spondylarthrosis	Doxycycline	6 w	Resolved
5 [13]	17/F	Hip	Juvenile rheumatoid arthritis, total hip replacement	Clindamycin	4 w	Resolved, retained prosthesis
6 [16, 23]	25/F	Hip, knee	Systemic lupus erythematosis, prednisone, endometritis, hip/knee joint prostheses	Tetracycline	8 w	Resolved, retained prostheses
7 [24]	39/F	Shoulders, knees, thoracic and lumbar spine, toes, blood	Systemic lupus erythematosis, prednisone, azathioprine	Doxycycline/ clindamycin, doxycycline/ temafloxacin	3 mo 4 mo	Relapsed Resolved
8 [25, 26]	66/F	Wrist, knee	Rheumatoid arthritis, methotrexate, prednisone, hip/knee joint prostheses	Tetracycline/ doxycycline, ciprofloxacin	6 mo 4 y	Relapsed Chronic, retained prostheses
9 [27]	54/F	Wrist, hip	Lymphoma, prednisone, urinary tract obstruction, ureteral stent	Doxycycline	3 w	Resolved
10 [16, 28]	63/M	Knee	Chronic lymphocytic leukemia, diabetes mellitus, prednisone	Tetracycline/ clindamycin	4 w	Resolved
11 [16, 29]	32/M	Shoulders, knee†	Renal transplant, cyclosporin A, prednisone	Doxycycline/ erythromycin	7 mo	Relapsed
12 [30]	NS	Knee	Hypogammaglobulinemia	NS	NS	NS
13 [16, 28]	27/M	Knee‡	Ligament repair	Doxycycline/ clindamycin	3 w	Resolved
14 [31]	10/F	Hip	T1 paraplegia, chronic intermittent bladder catheterization	Tetracycline	2 w	Resolved
15 [32]	24/M	Ankle, blood, pleural fluid	Trauma, T8–10 fracture, rib fracture, hemothorax	Erythromycin	NS	Resolved
16 [32]	26/M	Knee, blood	Trauma, C2–3 fracture, femur fracture	Rolitetracycline	NS	Resolved

Mycoplasma hominis

- Treatment
  - Not susceptible to macrolides
  - Doxycycline
  - Fluoroquinolones

The Great Imitator

William R. Short, MD, MPH
Associate Professor of Medicine
Perleman School of Medicine

History

- This is a 40’s year old male with PMH of HIV and multiple episodes of Syphilis.
- Followed at an outside institution from his diagnosis 2014 and he transferred to Penn. He was seen once in September 2015 and he was lost to care.
- He is on Abacavir/Lamivudine/Dolutegravir
- CD4 count 304/22% and HIV viral load undetectable. (September 2015)

- Calls April 2017 for a refill and he is asked to come in for evaluation.
  - Traveling back and forth to Baltimore to care for a family member
  - Told me he was treated for Gonorrhea in June 2016 (treated with CTX and Doxycycline)
  - I order labs RPR 1:32 (previous was non-reactive in 2015)
  - I called him and he went to DOH in Baltimore and they gave him 3 shots (confirmed) May 2017

  -I called DOH and spoke to a case worker and confirmed treatment.

  -He comes back to see me August 2017 asymptomatic RPR 1:128. He denies sexual activity since May 2017

  -I gave him one shot of Bicillin and I order a lumbar puncture

  WBC 220 mostly lymphs

  RBC 0

  Protein elevated

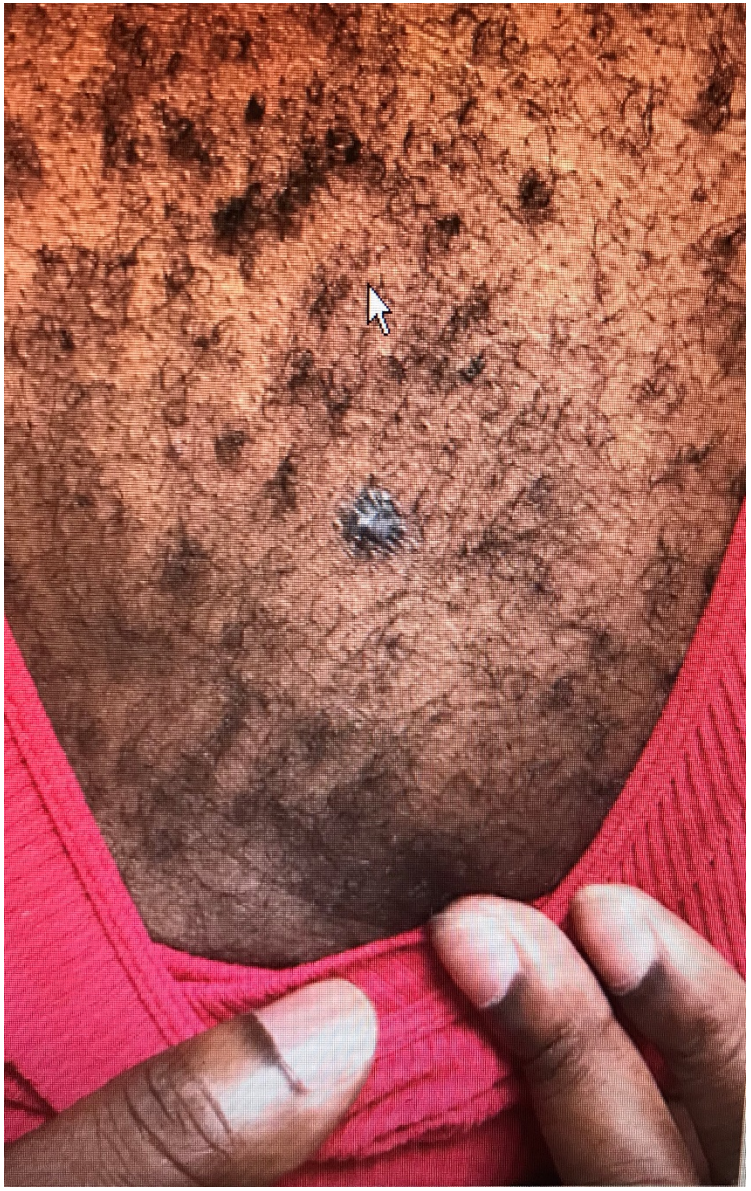
  VDRL: reactive 1:16

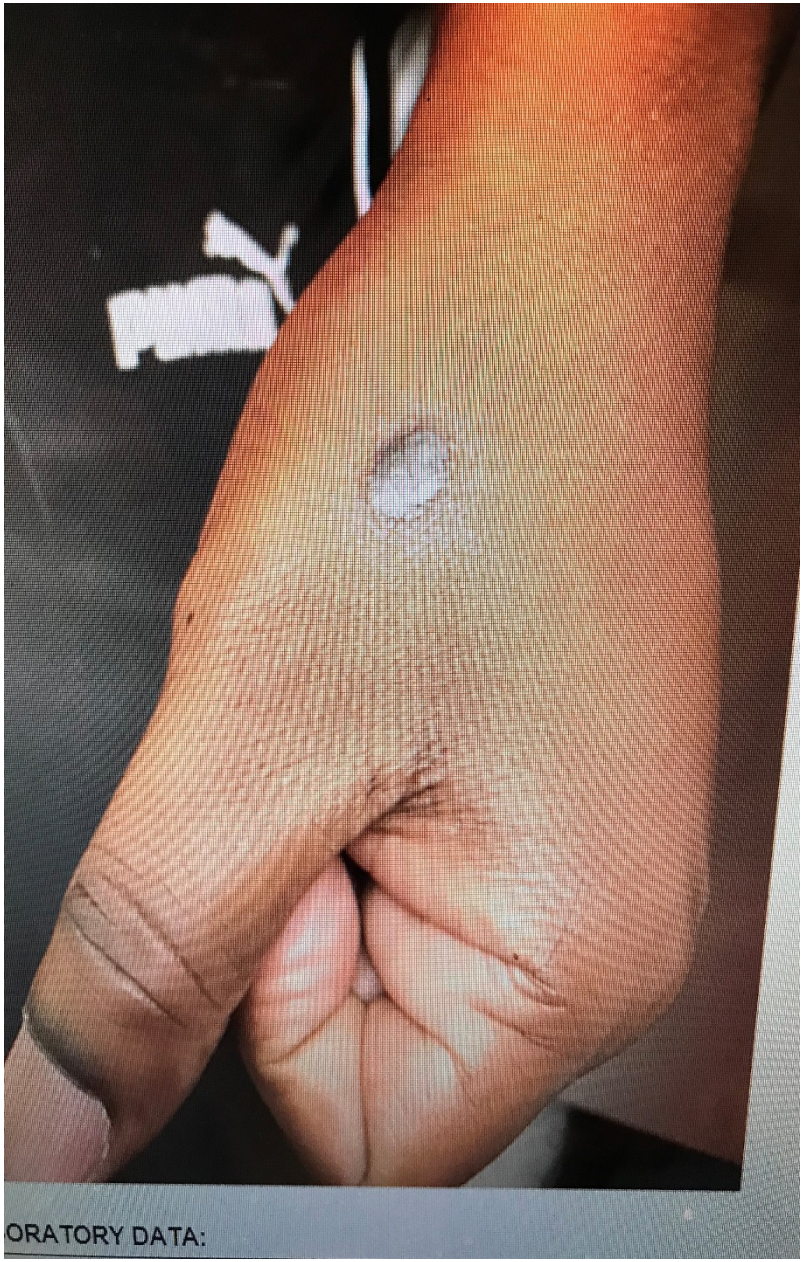
  -Treated with IV Pencillin for 14 days followed by Bicillin 2.4 million units IM X 1

  PICC line removed 9/2017

History

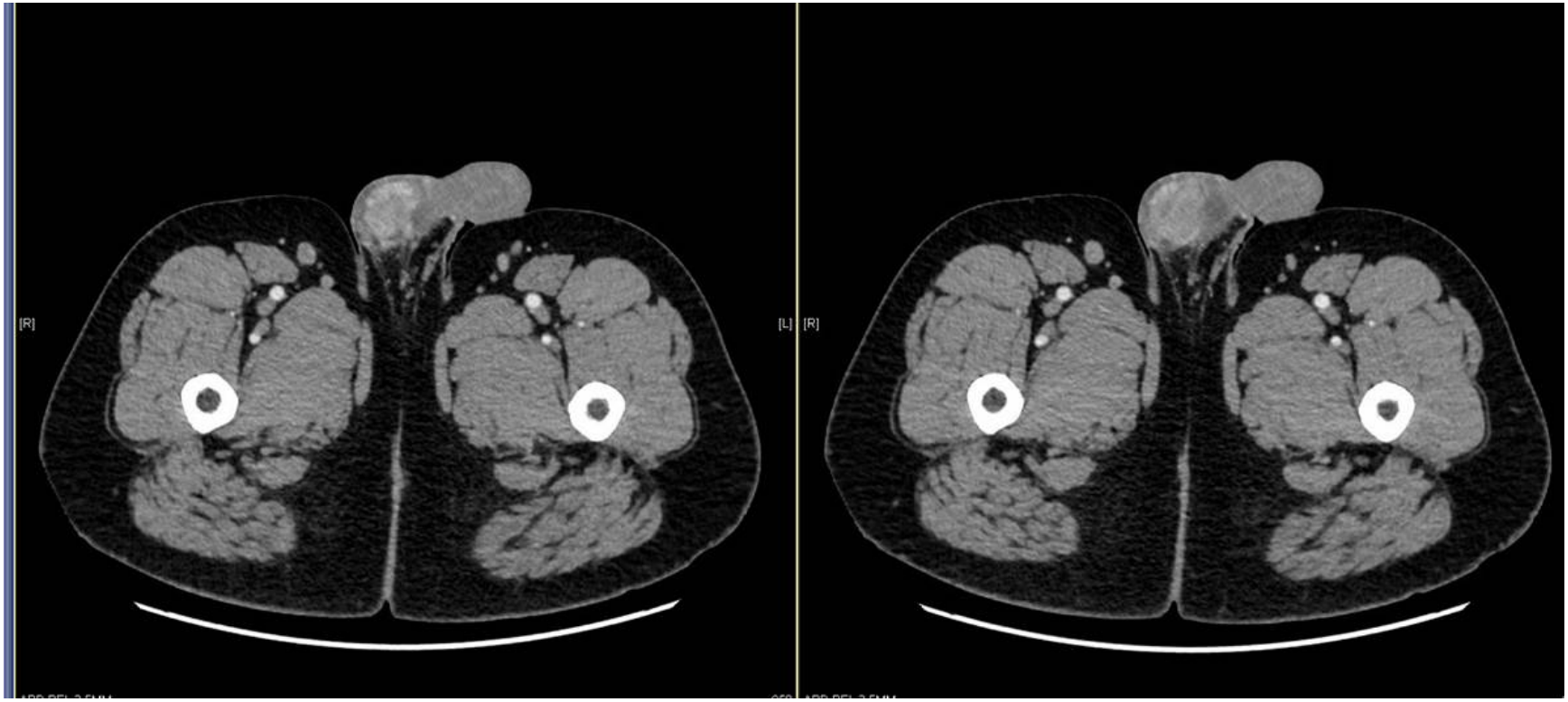
- 9/2017 admitted to Methodist Hospital with right testicular pain and swelling.
- Diagnosed with epididymo-orchitis and treated with Ceftriaxone and Doxycycline 100mg bid for 14 days.
- Ultrasound shows large hydrocele and mild hyperemia on color doppler flow.
- Called by PA and asked to follow up GC/CT because he was being discharged.

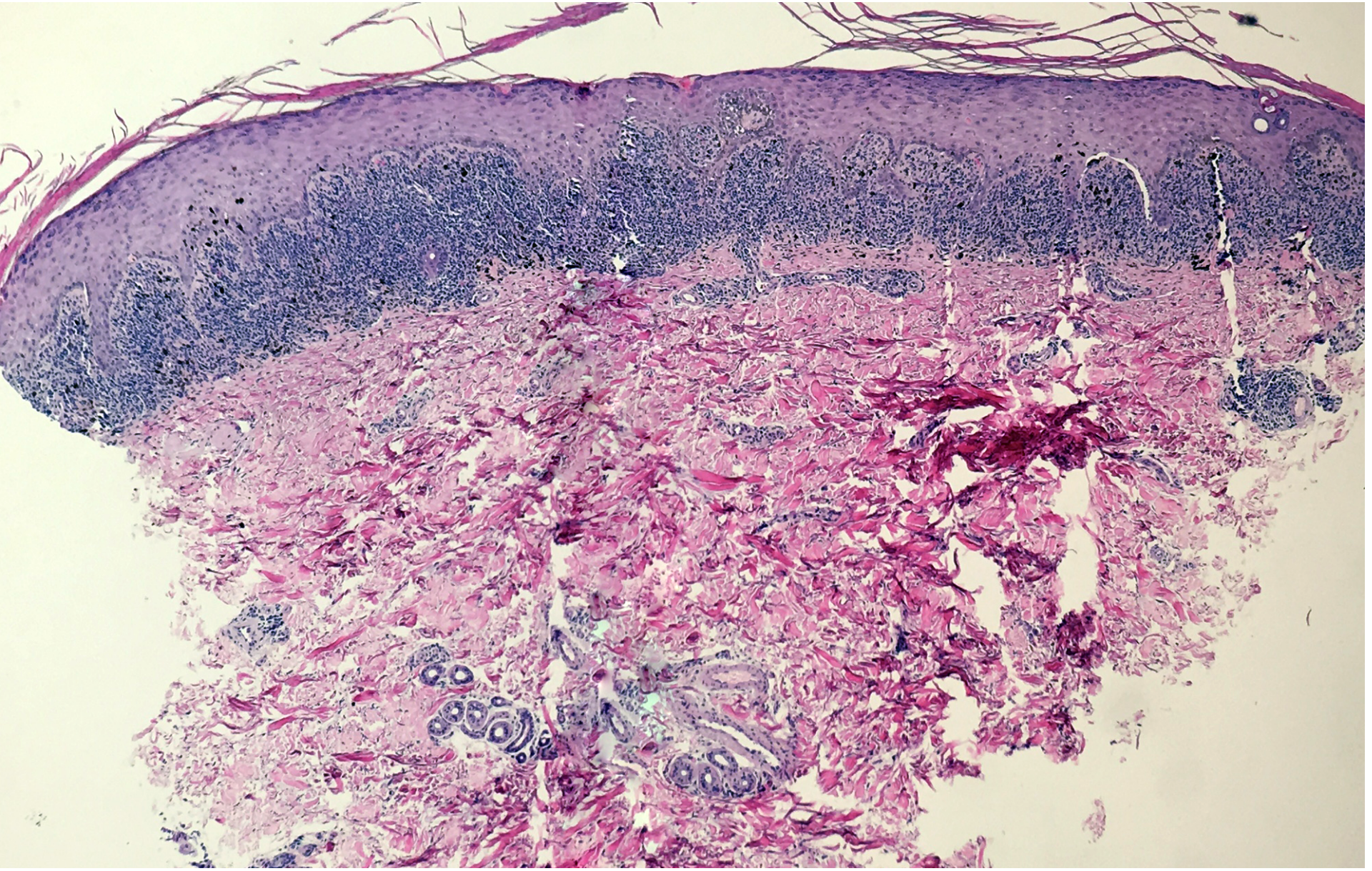


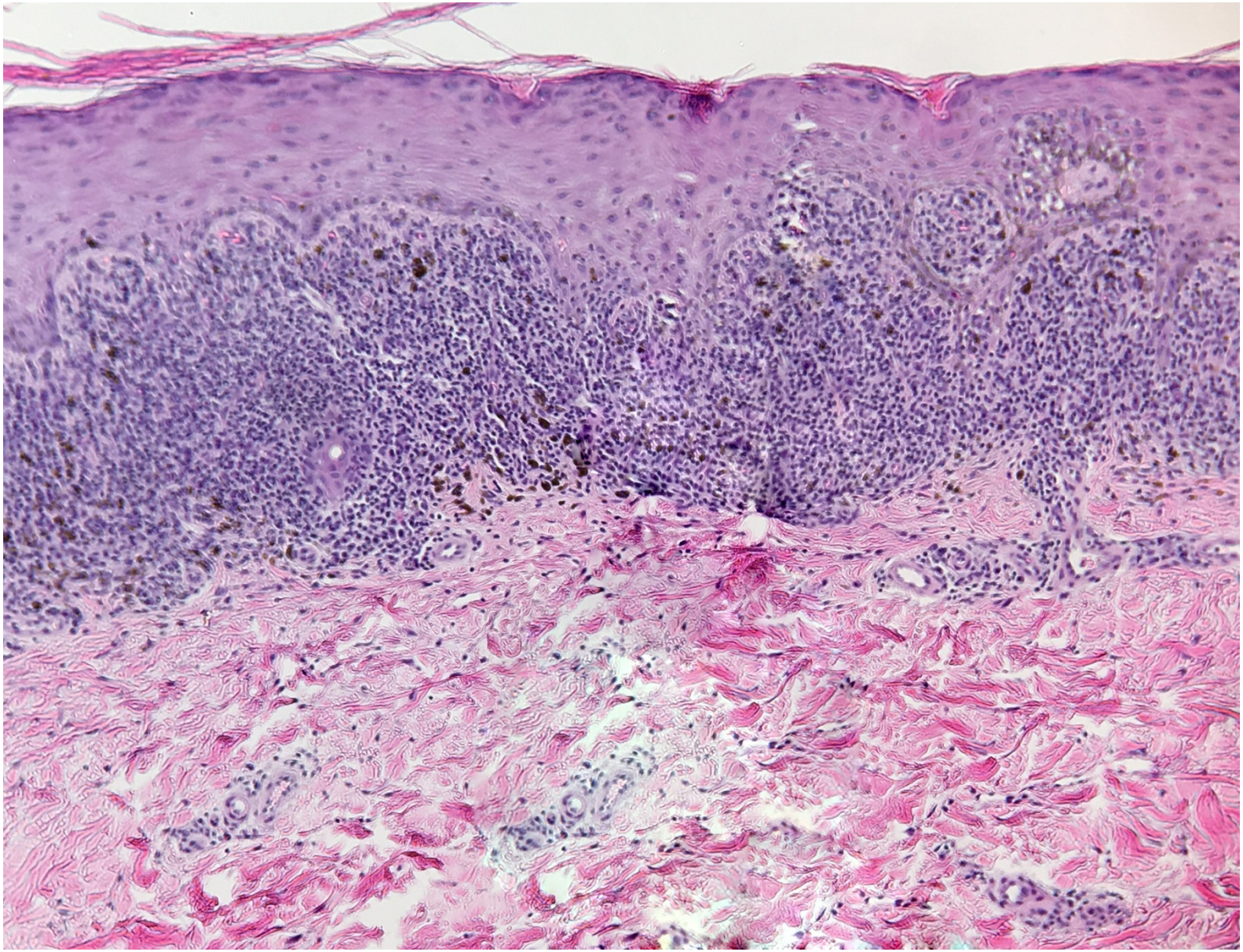

ORATORY DATA:

Differential and Management

CT scan







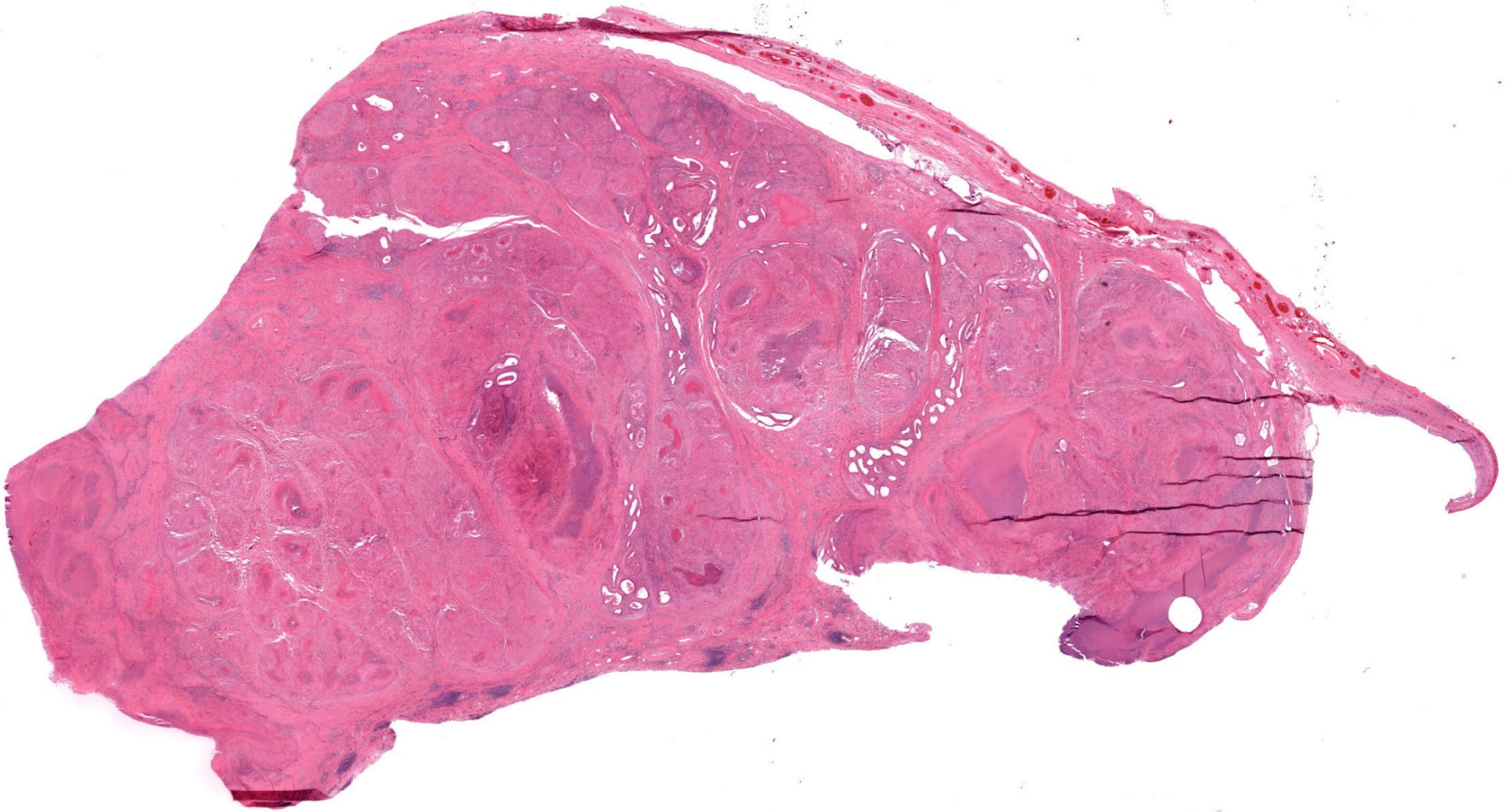
History

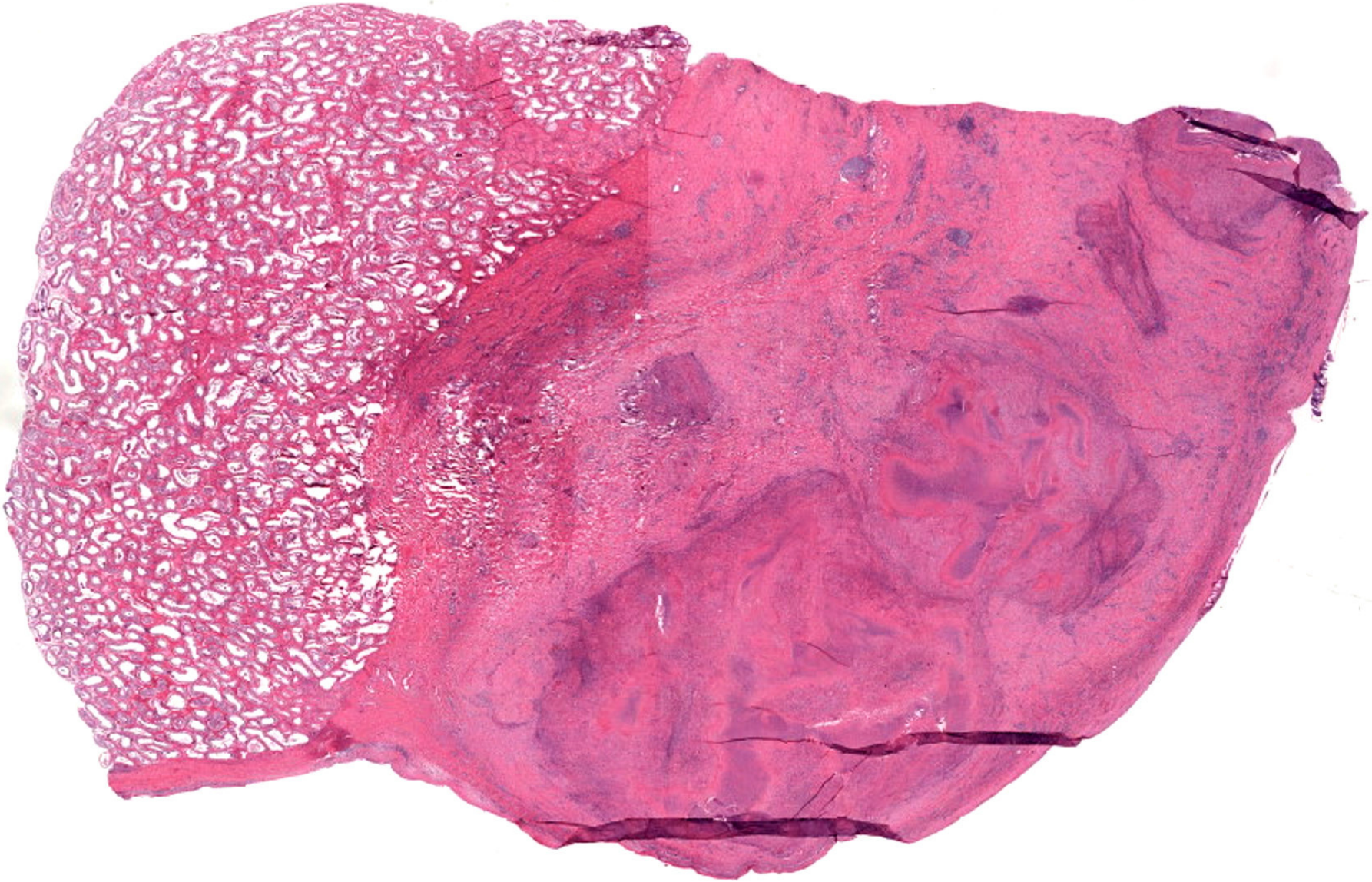
- Called urologist
- Pt had tumor markers drawn which were not elevated
- Taken to the OR exploration and/or orchiectomy
- Pt had orchiectomy

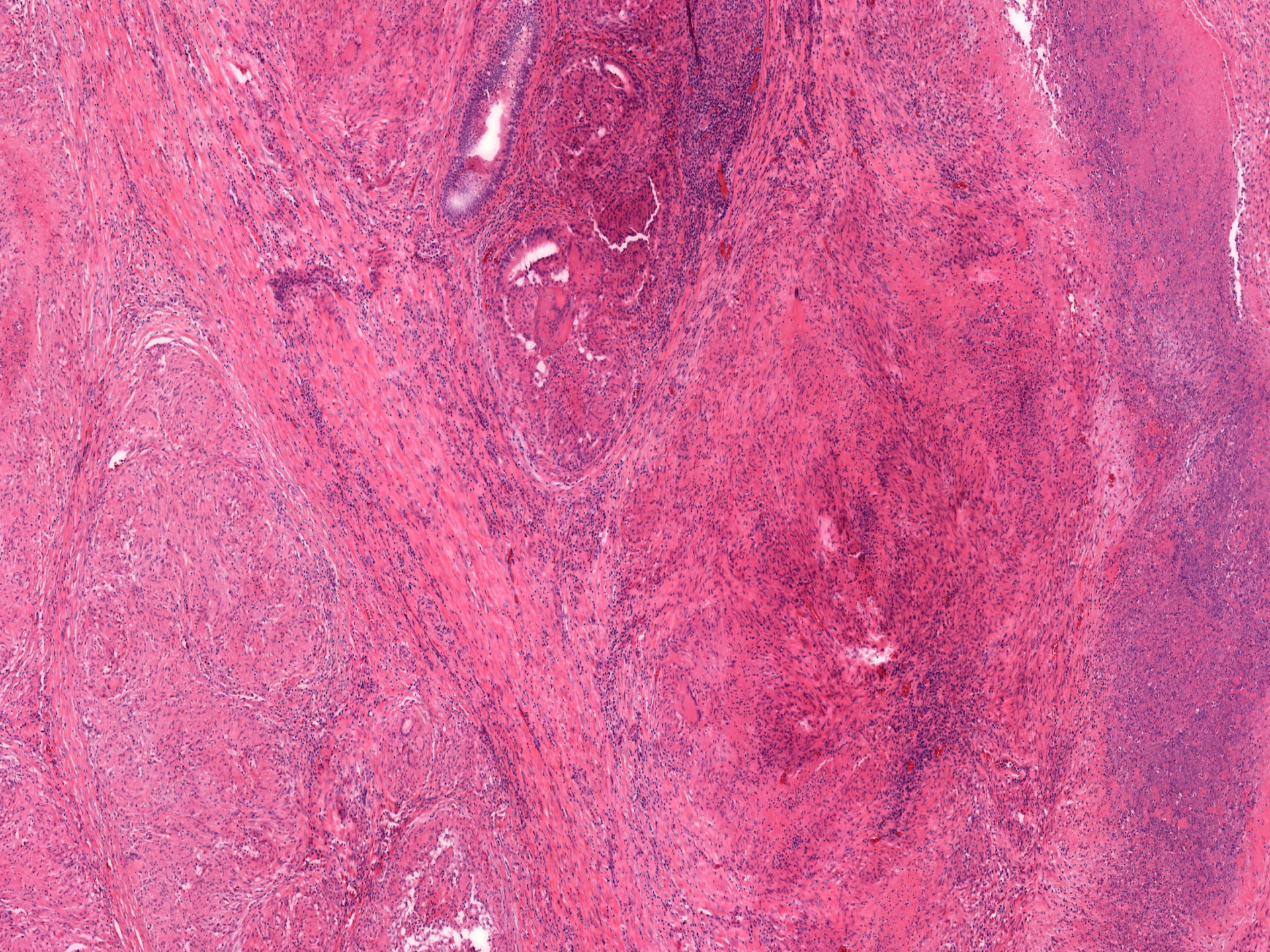
GROSS FINDINGS

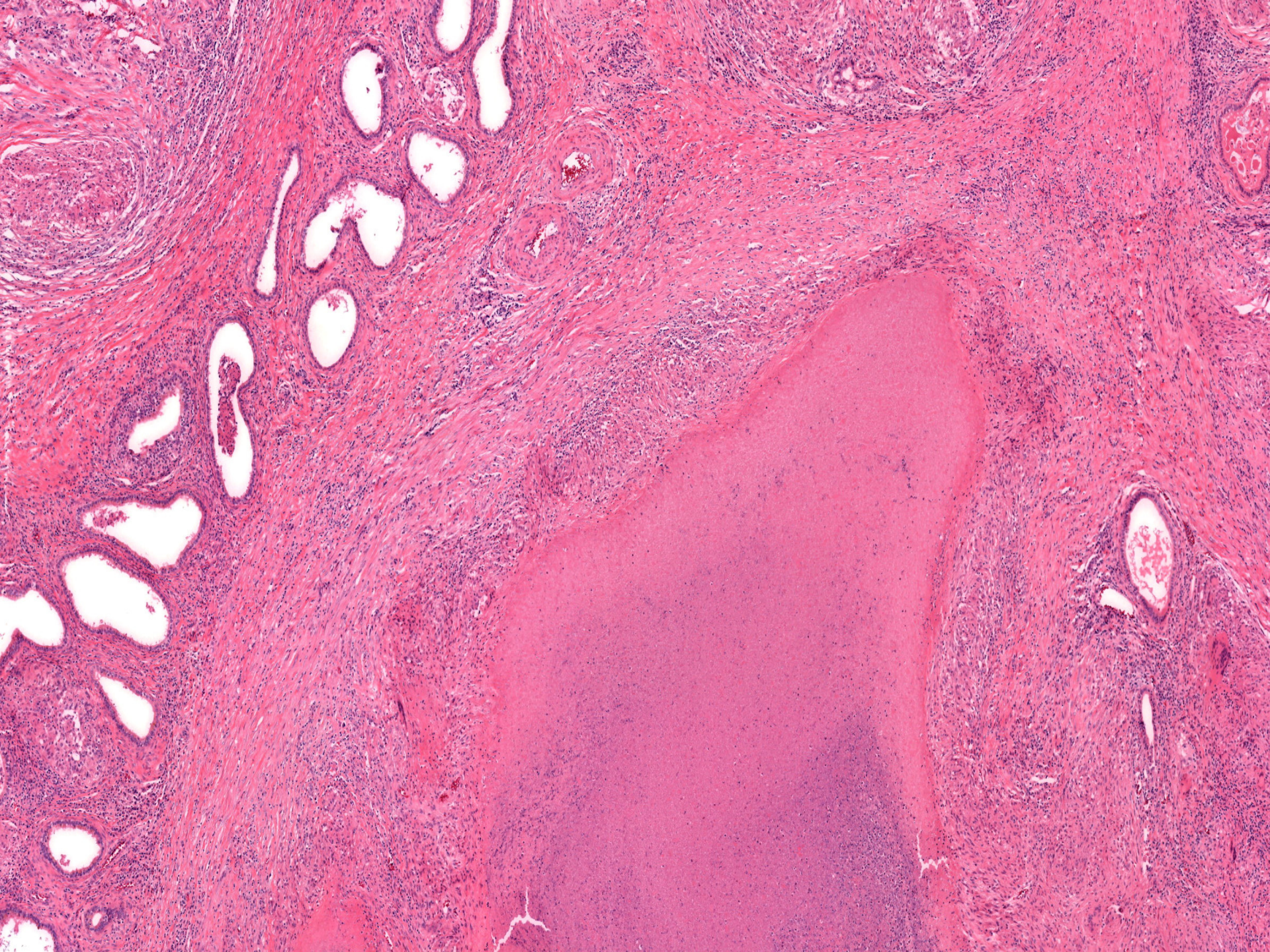
- RIGHT TESTICLE
  - WEIGHT: 150 g
  - SIZE: 8.3 x 3.5 x3.5
  - LARGE (8.0 cm) SMOOTH WALL CYST AND TWO ILL- DEFINED MASS/ THICKEN AREAS (2.3 cm AND 4 cm) IN THE TESTIS AND EPIDIDYMIS WITH PURULENT MATERIAL.

MICROSCOPIC FINDINGS





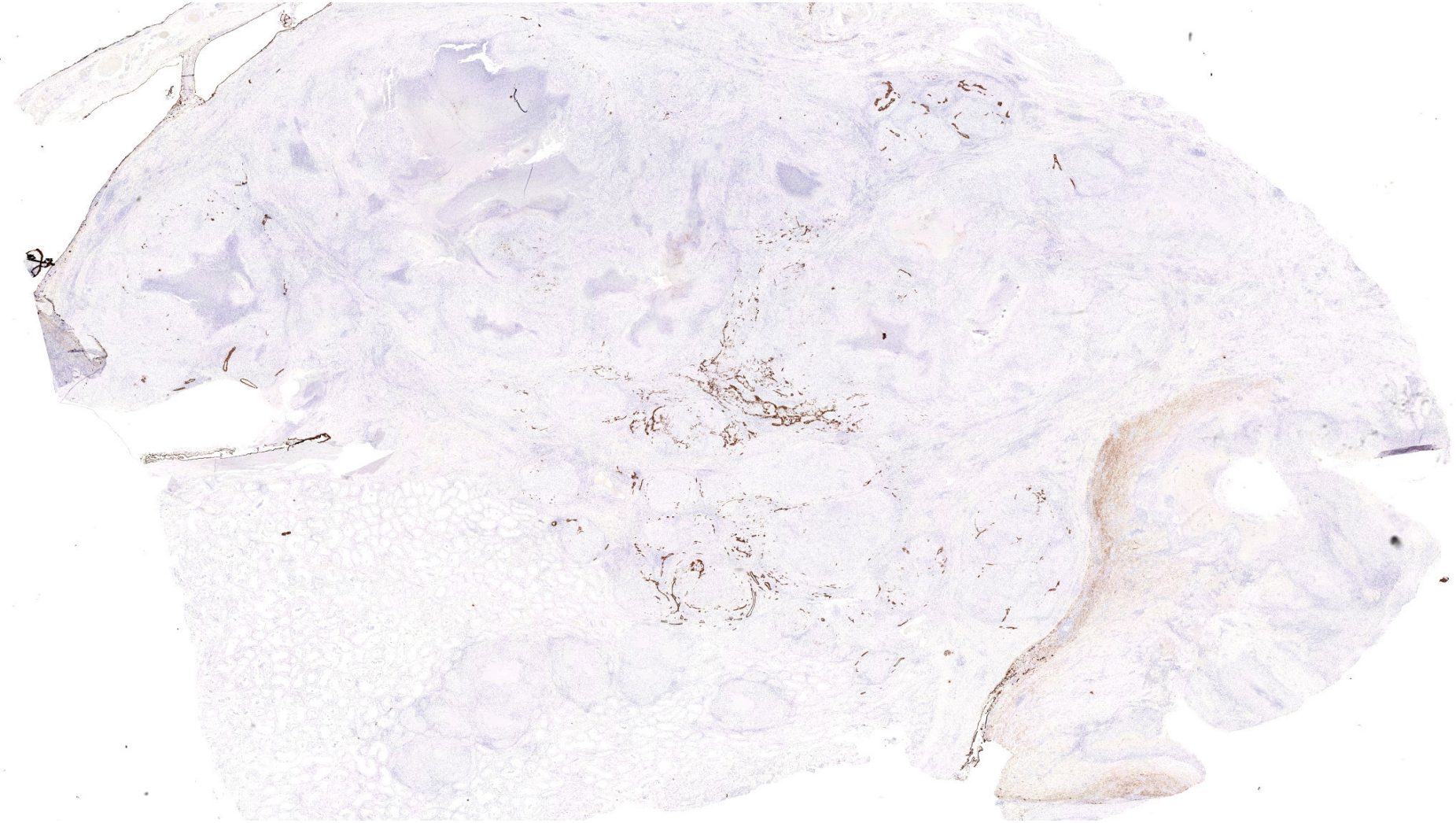




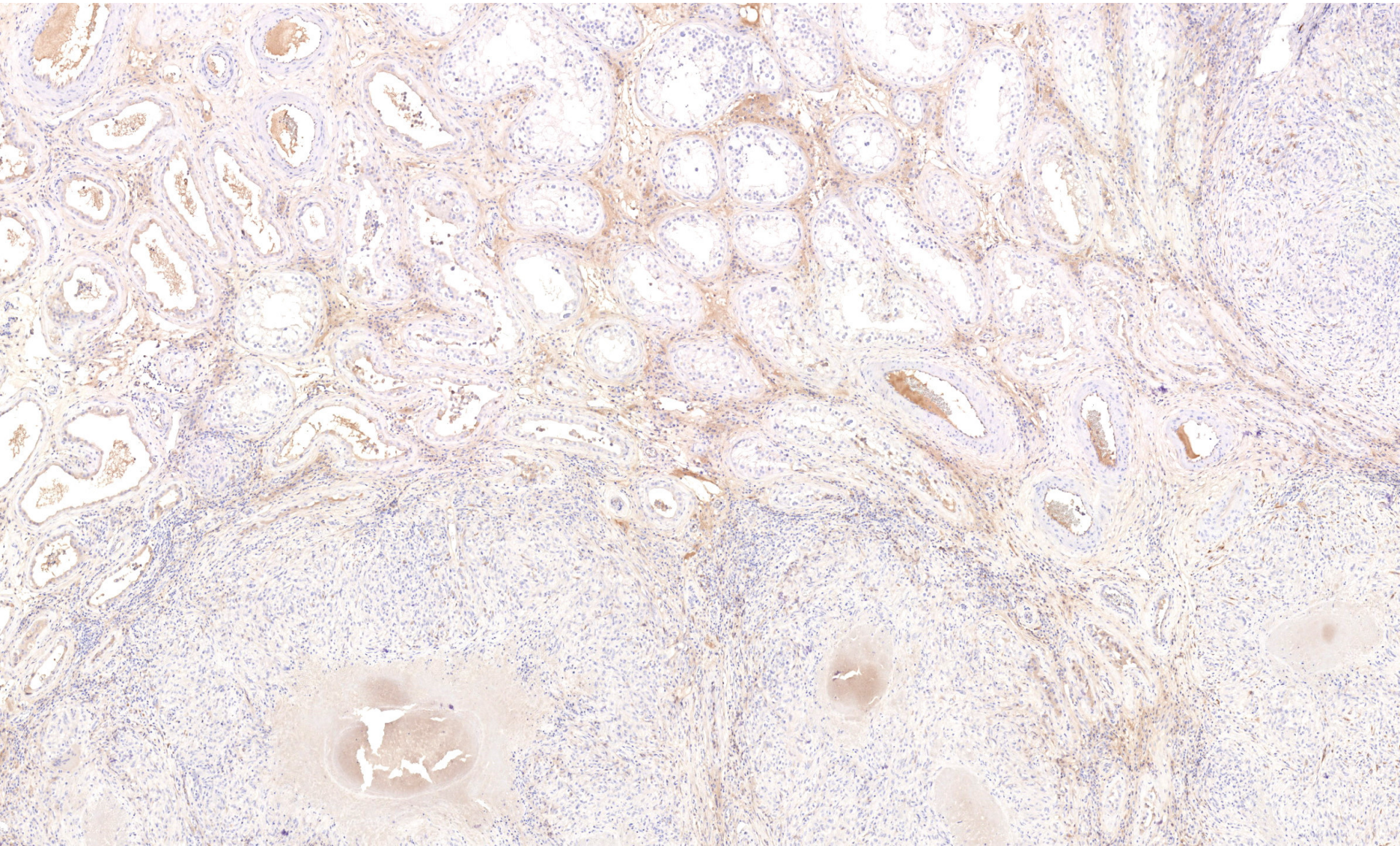
PRELIMINARY DX: GRANULOMATOUS ORCHIEPIDIDYMITIS

- D/DX:
  - Mycobacterial infection
  - Syphilis
  - Sarcoidosis
  - Fungal infection
    - Coccidiodomycosis, Histoplasma, Cryptococcus
  - Parasitic infection
    - Schistosoma, Filaria,Trichomonas, Toxoplasmosis,Echinococcus
  - Malakoplakia
  - Seminoma
  - Rare causes:
    - Leprosy, Brucellosis, S/P BCG therapy, Idiopathic

IHC: BROAD SPECTRUM KERATIN



IHC: OCT 3/4



SPECIAL STAINS

- AURAMINE-RHODAMINE: POSITIVE FOR A FEW ROD-LIKE BACTERIA, HIGHLY SUSPICIOUS FOR MYCOBACTERIA.

- KINYOUN, GMS AND Warthin-Starry : NEGATIVE

FINAL DIAGNOSIS:

-GRANULOMATOUS ORCHIEPIDIDYMITIS, FAVOR MYOBACTERIAL INFECTION.
-HYDROCELE

How to make the diagnosis?

Ordered Items

Acid Fast Smear+Culture W/Rflx

TESTS	RESULT	FLAG	UNITS	REFERENCE INTERVAL	LAB
Acid Fast Smear+Culture W/Rflx					
AFB Specimen Processing					
	Concentration				01
Acid Fast Smear	Negative				01
Acid Fast Culture	**Positive Abnormal**				01
Acid-fast bacilli have been detected in culture at 4 weeks; see AFB Organism ID by DNA probe					
AFB Organism ID by DNA Probe					01
M tuberculosis complex	**Positive Abnormal**				01
M avium complex	Negative				01
M kansasii	Not Indicated				01
M gordonae	Not Indicated				01
Other:					01

Genitourinary Tuberculosis

- Form of extrapulmonary Tuberculosis
  - GU TB accounts for 30-40% of all extrapulmonary TB (Eastwood, 2001)
- M. Tuberculosis reaches the genitourinary tract organs by hematogenous route and the primary site is often not apparent
  - The primary site is usually the **kidney** and /or **prostate**

Testis

- Tuberculosis of the prostate can extend along the vas or through the perivascular lymphatics and affect the epididymis
- If the epididymal infection is extensive and an abscess forms, it may rupture through the scrotal skin and establish a permanent sinus or it may extend into the testicle causing destruction

Treatment

- The primary treatment is medical therapy
- Usually requires first line drugs
- Genitourinary TB can be safely managed with short-course chemotherapy (6 months)

Role of surgery

- Procedure to relive obstruction
- Local treatment
- Upper urinary tract reconstruction, lower urinary tract reconstruction
- Genital TB

SHORT REPORT

Tuberculids: cutaneous indicator diseases of *Mycobacterium tuberculosis* infection in young patients

N.D.L. Hallensleben,[1] H.J.C. de Vries,[2,3,4,*] K.D. Lettinga,[5] H.J. Scherpbier[1]

Results Tuberculids are cutaneous immunological reactions triggered by a *Mycobacterium tuberculosis* infection elsewhere in the body. The three main manifestations of cutaneous tuberculids are: lichen scrofulosorum, papulonecrotic tuberculids and erythema induratum of Bazin. Whereas the latter is more common, the first two presentations are rare.

Conclusion It is of importance that clinicians, including dermatologists, are aware of the spectrum of clinical presentations of tuberculosis to halt this destructive and highly contagious disease early in its course.

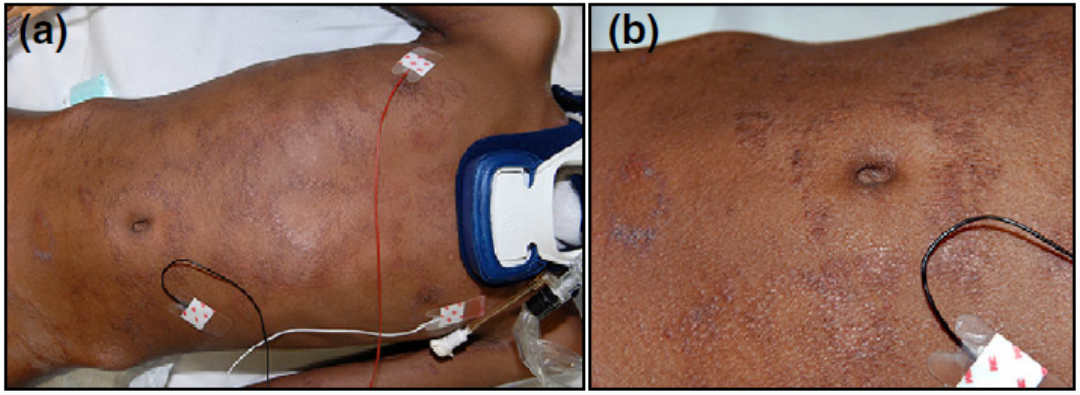


Figure 1 Lichen scrofulosorum lesions: multiple polygonal, flat, hyperpigmented papules in a guirlande-like configuration on the trunk (a) and in close up on the anterior abdominal wall (b).

Lichen planus and lichenoid reactions as a systemic disease

Judit Lukács, MD*, Sibylle Schliemann, MD, Peter Elsner, MD

Department of Dermatology, University Hospital Jena, Erfurter Straße 35, 07743 Jena, Germany

Clinics in Dermatology (2015) **33**, 512–519

- ***External factors*** may trigger LP (drugs, stress, infection, systemic disease)
- Studies investigated immunologic pathogenesis related to ***T-cell autoimmunity*** with keratinocyte as target cell
- Altered self-antigens on surface of basal keratinocyte are ***modified by infectious agents*** or drugs and may be targets of T-cell response
- Clinically and histologically, LP and lichenoid type reactions are indistinguishable

Case

- A 20's year old male with newly diagnosed HIV and "an oral lesion" referred for management
- He has never been tested for HIV in the past
- He was in his usual state of health until he noted unintentional weight loss in May 2016→progressed to drenching night sweats and fevers
- Hospitalized in July in Washington DC and given "antibiotic 3 pills/day" for a week with no change in his oral lesion

Case

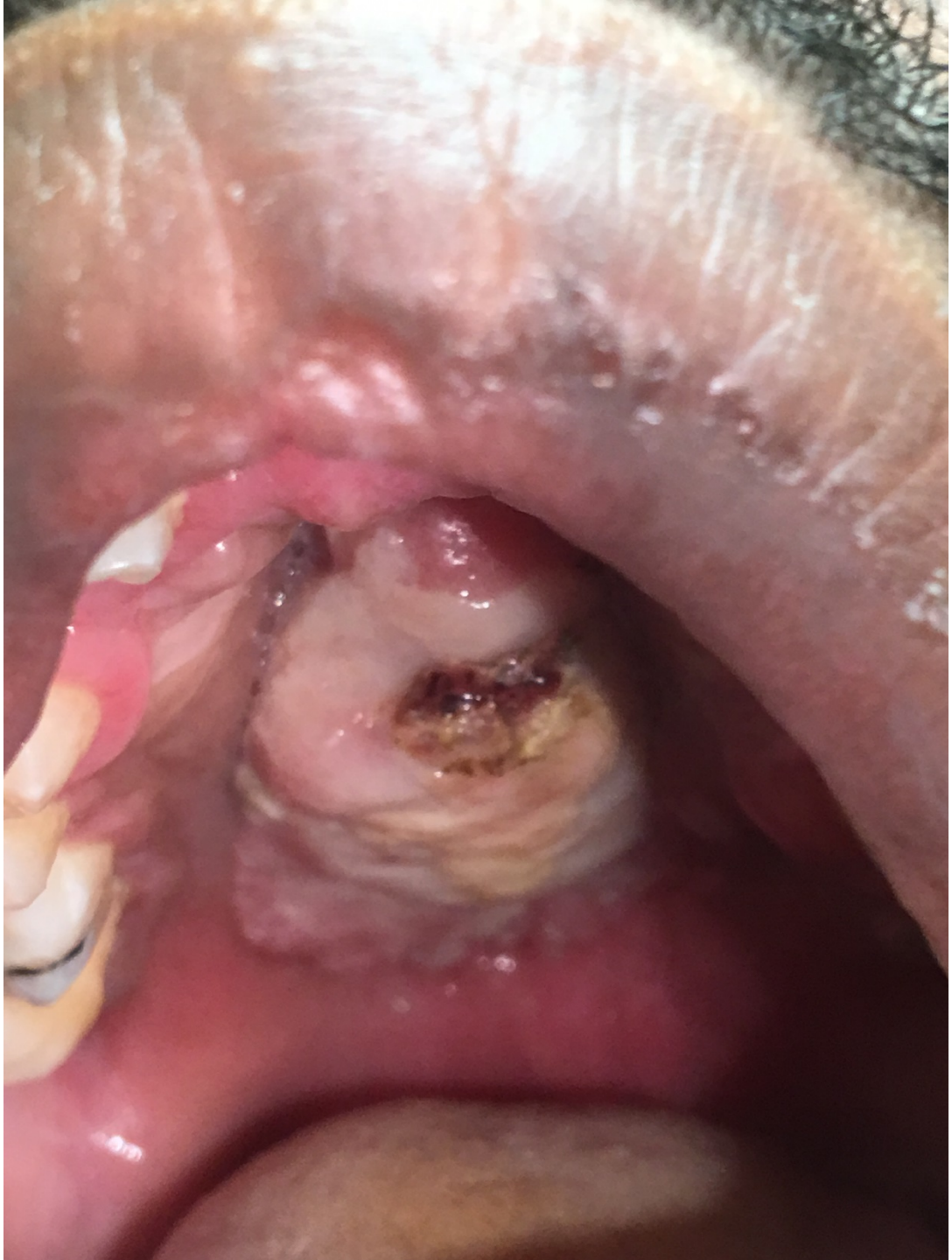
- In August, he broke up with his partner and came back home to Philadelphia
- He noted almost daily fevers to 103 and continued weight loss (total 30 lbs since May)
- He was admitted to Einstein Hospital (October)
  - HIV testing done in ED was positive
    - CD4/HIV RNA pending
  - ENT consulted for a biopsy
  - Discharged to follow up with ENT, ID

Case

- PMH: denies
- PSH: denies
- Medication: denies
- Social History: denies tobacco, + marijuana and ETOH use on the weekends. He was living with his partner in DC but came back home to Philadelphia with his family. He has no recent travel outside of DC or Philadelphia.
- Family history: non-contributory

Case

- Gen: 27 year old male who was in NAD
- VS: T 99.6 HR-102 BP-108/55 RR-14
- HEENT: oral lesion, no thrush
- Neck: supple
- Heart: regular, no murmurs, rubs
- Lungs: clear bilaterally
- Abdomen: normal no HSM
- EXT: no clubbing, cyanosis, edema
- Skin: no lesions
- Lymph nodes: no adenopathy



Differential?

Plasmblastic Lymphoma

HIV associated Non-Hodgkins Lymphoma

- 50-100 fold increased incidence of aggressive NHL (in comparison to HIV-negative people)
- B symptoms common
- Often extra nodal (liver, gastric, rectum, kidney, and skin involvement)
- Types
  - Diffuse large B cell (most common)
  - Burkitt lymphoma
  - Primary CNS lymphoma (rare today)
  - Plasmablastic lymphoma (rare)
  - Primary Effusion lymphoma (rare)

Plasmablastic Lymphoma

- Subtype of diffuse large B-cell lymphoma
- Rare (approx. 3% of HIV-associated NHL)
- Mass lesion in gums/palate but can be anywhere
- Often diagnosed by dentists
- Poor outcome (median survival 11 months, 5 year survival 24%)

Follow-up

- I started him on TMP/SMX in the office and obtained baseline labs, including genotype pending biopsy results
- CD4-41/6%
- HIV viral load 250,000 copies/ml
- Started him on Descovy, Dolutegravir
- Admitted to Pennsylvania Hospital for CT scan, PET scan, bone marrow biopsy, lumbar puncture
- Started chemotherapy, completed second cycle of EPOCH
- Oral lesion, fevers, drenching night sweats have resolved