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

<table>
<thead>
<tr>
<th>Lab</th>
<th>Units</th>
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<th>0457</th>
<th>0500</th>
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<td>THO/uL</td>
<td>16.1*</td>
<td>15.6*</td>
<td>15.6*</td>
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<td>HEMOGLOBIN</td>
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<td>8.9*</td>
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<td>PLATELETS</td>
<td>THO/uL</td>
<td>513*</td>
<td>545*</td>
<td>535*</td>
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<table>
<thead>
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<td>SODIUM</td>
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<td>144</td>
<td>144</td>
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<tr>
<td>POTASSIUM</td>
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<td>5.2*</td>
<td>5.3*</td>
<td>5.5*</td>
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<td>CARBON DIOXIDE</td>
<td>mmol/L</td>
<td>27</td>
<td>30</td>
<td>28</td>
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<tr>
<td>UREA NITROGEN</td>
<td>mg/dL</td>
<td>51*</td>
<td>53*</td>
<td>47*</td>
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<tr>
<td>CREATININE</td>
<td>mg/dL</td>
<td>1.13</td>
<td>1.20</td>
<td>1.04</td>
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<tr>
<td>CALCIUM</td>
<td>mg/dL</td>
<td>8.9</td>
<td>9.1</td>
<td>9.0</td>
</tr>
<tr>
<td>GLUCOSE</td>
<td>mg/dL</td>
<td>108*</td>
<td>105*</td>
<td>102*</td>
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</table>
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.

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

• Treatment
  – Not susceptible to macrolides
  – Doxycycline
  – Fluoroquinolones
The Great Imitator

William R. Short, MD, MPH
Associate Professor of Medicine
Perelman 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.
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.
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 ORCHIEPIDIDYMIDYMITIS, FAVOR MYOBACTERIAL INFECTION.
- HYDROCELE
How to make the diagnosis?
# Ordered Items

**Acid Fast Smear+Culture W/Reflix**

<table>
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<tr>
<th>TESTS</th>
<th>RESULT</th>
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<th>UNITS</th>
<th>REFERENCE INTERVAL</th>
<th>LAB</th>
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<td>Acid Fast Smear</td>
<td>Negative</td>
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<tr>
<td>Acid Fast Culture</td>
<td>Positive Abnormal</td>
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<td>Acid-fast bacilli have been detected in culture at 4 weeks; see APB Organism ID by DNA probe</td>
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<td>APB Specimen Processing</td>
<td>Concentration</td>
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<td>APB Organism ID by DNA Probe</td>
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<tr>
<td>M tuberculosis complex</td>
<td>Positive Abnormal</td>
<td>01</td>
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<td>M avium complex</td>
<td>Negative</td>
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<td>M kansasii</td>
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<td></td>
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<td>M gordonae</td>
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<tr>
<td>Other</td>
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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. Scherpbijer¹

**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.

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**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?
Plasmablastic 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