Random Highlights
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Women’s Health: Vaginal Discharge

22 year old sexually active female c/o vaginal discharge. Pelvic shows:
Thin gray-white d/c, pH 5, and a strong fishy odor when making the KOH slide.
Dx?
Bacterial vaginosis
Treatment?
Flagyl 500 mg PO q 12 hours x 7 days (Safe in Preg)

+ clue cells
Caused by Gardnerella
Women’s Health: Vaginal Discharge

22 year old sexually active female c/o vaginal discharge. Pelvic shows:
pH < 4, vulvar erythema, thick white d/c adherent to the vaginal walls
Dx? Candida
Treatment? Fluconazole (Diflucan) 150 mg PO x 1
Treatment if pregnant? Clotrimazole or Miconazole PV x 7 days

pH < 4.5
KOH budding yeast and hyphae
Women’s Health: Vaginal Discharge

22 year old sexually active female c/o vaginal discharge. Pelvic shows:

pH > 4.5, wet mount with motile organisms

Dx?

Trichomonas

Treatment?

Metronidazole 2 gm PO x 1 dose

pH > 4.5

Motile flagellated organisms on wet mount

Discharge can be clear, white, yellow, or green
Women’s Health: Vaginal Discharge

13 year old sexually active female c/o vaginal discharge. Pelvic shows: pH < 4.5, many WBCs on wet mount, otherwise normal slide. Most likely cause:
A. Bacterial vaginosis
B. Trichomoniasis
C. Physiologic discharge
D. Chlamydia
E. Candida

pH < 4.5, leukorrhea, predominance of WBCs on wet mount, no treatment needed, typically starts several months before menses
Women’s Health: Vaginal Discharge

22 year old sexually active female c/o thick yellow vaginal discharge and right-sided pelvic pain. Pelvic shows: cherry red cervix, cervical motion tenderness, thick discharge from os.

Next step?
A. Ultrasound
B. Ultrasound with doppler flow
C. IM ceftriaxone + oral doxycycline
D. CT without contrast

PID
Usually GC/Chl, can cause infertility, ectopic pregnancy
Tx: Ceftriaxone 250 mg IM + Doxy 100 mg PO x 14 days +/- metronidazole 500 mg BID x 14 days
Tx if severe: IV 3rd gen cephalosporin and then as above
Women’s Health: Pelvic Pain

Sudden onset, unilateral, N/V, may be febrile:

Dx?

Ovarian torsion

Testing?

Ultrasound with doppler flow

Tx?

Surgery
Women’s Health: Cancer Risks

Endometrial:
High estrogen levels
- Early menarche, late menopause, nulliparous, obesity, PCOS, unopposed estrogen

Ovarian:
- Family history, infertility, endometriosis, smoking (mucinous), unopposed estrogen

Cervical:
- HPV
Women’s Health: Menstrual Disorders

Menorrhagia - abnormally heavy or prolonged
Metrorrhagia - irregular intervals
Menometrorrhagia - abnormally heavy or prolonged occurring irregularly/more frequently than normal
Dysmenorrhea - painful
Polymenorrhea - cycle 21 days or fewer
Oligomenorrhea - infrequent, often light menstrual periods (intervals > 35 days)
Amenorrhea - Absent menstruation in reproductive age woman
Pharmacy

Anticholinergic Properties
“Dry as a bone, red as a beet, mad as a hatter”
- Ataxia
- Tachycardia
- Urinary retention
- Ileus
- Dry mouth
- Confusion
- Speech problems
- Visual disturbance (mydriasis)
- Flushing

Examples:
Antidepressants (Amitriptyline)
Antihistamine (Benadryl)
Antispasmodic (Dicyclomine)
Muscle Relaxants (Cyclobenzaprine)
Urinary Incontinence Med (Detrol, Ditropan)
Pharmacy

Coumadin Interactions:
- Garlic
- Ginger
- Gingko
- Ginseng
- Feverfew
- CoQ10
Pharmacy: Pre-Op

**Pre-op Discontinuation Timing:**

ASA
- 7 days

NSAID
- 3 days

Warfarin
- 4-5 days

Heparin
- 5 hours

Lovenox
- 12-24 hours

Plavix
- 7-10 days
 Obesity

<table>
<thead>
<tr>
<th>Category</th>
<th>BMI Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight</td>
<td>25-29</td>
</tr>
<tr>
<td>Obese</td>
<td>30-39</td>
</tr>
<tr>
<td>Morbid Obesity</td>
<td>40-49</td>
</tr>
<tr>
<td>Super-obese</td>
<td>50-59</td>
</tr>
</tbody>
</table>

Surgery for BMI > 40 or > 35 + comorbidities
Cardiology: Endocarditis

Duke Criteria

**ENDOCARDITIS**
- Roth spots of the retina
- Splinter hemorrhages
- Janeway lesions
- Osler's nodes
- Splinter hemorrhages

**DUKE CRITERIA FOR DIAGNOSIS**
- Mitral valve most frequently involved
- Tricuspid valve associated with IV drug use

**DUKE MAJOR CRITERIA**
- Two positive blood cultures
- Positive echo
- New regurgitant murmur

**DUKE MINOR CRITERIA**
- Predisposing condition
- Fever
- Immunologic signs
- One positive blood culture
- Positive echo
- Not meeting major criteria

2 MAJOR OR
1 MAJOR, 3 MINOR OR
5 MINOR
Anticoagulation for Non-Valvular A Fib

CHAD2
- CHF
- HTN
- Age > 75 yrs
- DM
- Stroke/TIA (2 points)

Score 0 = ASA
Score 1-2 = ASA or Warfarin depending on risk/benefit
Score >/= 3 = Warfarin
Cardiology: Conduction Abnl

MOBITZ TYPE 1

MOBITZ TYPE 2 (3:1 BLOCK)

P:QRS P P P:QRS P P
Endocrinology: Thyroid

**Hyperthyroid**
- Grave’s
  - TSH recep ab
  - Increased RAI uptake
  - Tx: PTU (#1 preg)

**Hypothyroid**
- Hashimoto’s
  - High TSH, Low T4

  - Galactorrhea
    - TSH effect on prolactin secretion

**Nodules**
- Check TSH
  - TSH low = scan
  - TSH high = U/S, and if nodule, then biopsy
  - TSH normal = FNA bx

  - FNA
    - Malignant = Surgery
    - Benign = Watch
    - Suspicious or follicular neoplasm = Iodine scan
      - Cold = Bad
GI: Bloody Diarrhea

E. Coli 0157:H7
- Avoid antibiotics; theoretical risk of HUS

Shigella
Campylobacter
Salmonella
Amebiasis
- Low or no fecal leukocytes
GI: Diarrhea

Traveler’s Diarrhea Treatment?
- Cipro

Giardia and C. Diff Treatment?
- Metronidazole

Pediatric Diarrhea Treatment?
- Consider probiotics
# GI: Inflammatory Bowel

## Crohn’s
- Transmucosal
- Small bowel and colon
- Skip lesions
- No gross bleeding
- Ulcers, fissures, abscesses
- Less common extraintestinal dz
- ASCA 60-70% cases, p-ANCA 5-10%
- Surgery not curative

## Ulcerative Colitis
- Mucosal
- Rectum and proximally
- Continuous
- Bloody stool
- Gross blood on DRE
- Extraintestinal dz common: eye, pyoderma gangrenosum, arthritis, ankylosing, clots, sclerosing cholangitis
- P-ANCA 50-70%, ASCA 10-15%
- Colectomy curative
Virchow’s node

Sir, I have been noting this umbilical node in most of our cancer patients!

Excellent observation sister. I am going to publish a paper on this!

http://medicalmnemonics4u.blogspot.com
Pulmonary: Pneumonia

Streptococcus pneumoniae #1
S. aureus- cavitary disease
Legionella- water droplet exposure, GI sx, hyponatremia
Klebsiella- Alcohol abuse, DM
Mycoplasma- young adults, rash, bullous myringitis
Chlamydia pneumoniae- young adults, follows prolonged ST
Q fever (Coxiella burnetii)- exposure to livestock, elevated LFTs
Chlamydia psittaci- bird exposure
Psudomonas- important cause of vent-associated
Pulmonary: Lung Dz

Restrictive
- Low FVC
- Low/NI FEV1
- FEV1/FVC > .7

Obstructive
- Low/NI FVC
- Low FEV1
- FEV1/FVC < .7
# Pulmonary: Asthma

<table>
<thead>
<tr>
<th>Category</th>
<th>Sx</th>
<th>Lung Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild Intermittent</td>
<td>&lt; 2 d/wk, night &lt; 2x/mo</td>
<td>FEV1 &gt;/= 80%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEV1/FVC NI</td>
</tr>
<tr>
<td>Mild Persistent</td>
<td>&gt; 2x/wk, night 3-4x/mo</td>
<td>Same as above except not necessarily nl b/t attacks</td>
</tr>
<tr>
<td>Moderate Persistent</td>
<td>Daily sx, night &gt;1 x/wk</td>
<td>FEV1 &gt; 60% to &lt; 80%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FEV1/FVC down 5%</td>
</tr>
<tr>
<td>Severe Persistent</td>
<td>Daily, continual</td>
<td>FEV1 &lt; 60%, FEV1/FVC reduced &gt; 5%</td>
</tr>
</tbody>
</table>
ID: HIV

CD 4 < 150-200 = PCP
CD4 < 50 = CMV

Prophylaxis
PCP CD4 < 200 Use: TMP-SMX or dapsone
Toxoplasma CD4 < 100 Use: Same as above
MAC CD4 < 50 Use: Azithro or Clarithro or

Rifabutin
ID: Tick-Borne Dx

<table>
<thead>
<tr>
<th>Disease</th>
<th>Hosts</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babesiosis</td>
<td>Cattle, dogs, rodents, deer</td>
<td>Coastal East, Mexico, MD, etc.</td>
</tr>
<tr>
<td>Tularemia</td>
<td>Rabbits</td>
<td>US, Canada</td>
</tr>
<tr>
<td>Ehrlichiosis</td>
<td>Dogs, deer</td>
<td>Japan, S. US</td>
</tr>
<tr>
<td>Rocky Mtn</td>
<td>Mammals</td>
<td>SE and S. US</td>
</tr>
<tr>
<td></td>
<td>- Rash on palms and soles</td>
<td></td>
</tr>
<tr>
<td>ID: Fungal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Aspergillus</td>
<td>Soil, compost</td>
<td></td>
</tr>
<tr>
<td>Cryptococcus</td>
<td>Bird droppings, pigeon</td>
<td></td>
</tr>
<tr>
<td>Coccidioides</td>
<td>San Joaquin Valley, SW US</td>
<td></td>
</tr>
<tr>
<td>Histoplasma</td>
<td>Bird and bat droppings, Miss. and Ohio River valley, spelunking, chicken coops</td>
<td></td>
</tr>
<tr>
<td>Blastomyces</td>
<td>Great Lakes region, forests and streams</td>
<td></td>
</tr>
<tr>
<td>Sporothrix</td>
<td>Rose bushes</td>
<td></td>
</tr>
</tbody>
</table>
ID: Rheumatic Fever

**Jones Criteria**

**Major:**
- Carditis
- Migratory polyarthritis
- Sydenham chorea
- Subcutaneous nodules
- Erythema marginatum

**Minor:**
- Clinical: Fever, Arthralgia
- Lab: Elevated acute phase, Prolonged PR interval

*Inflammatory disease involving the joints, heart, skin, and nervous system after an episode of untreated group A streptococcal pharyngitis*

**Jones Criteria for Diagnosis:**
- 2 major or 1 major and 2 minor with evidence of recent group A strept infection
Hematology

ALL – Kids, Down Syndrome
AML – Auer rods
CLL - #1 in adults, smudge cells
CML - Philadelphia
Hodgkin’s – B-cell, Reed-Sternberg
## Renal Casts

<table>
<thead>
<tr>
<th>Cast Type</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>RBC casts</td>
<td>Glomerulonephritis</td>
</tr>
<tr>
<td>WBC casts</td>
<td>Pyelonephritis, interstitial nephritis</td>
</tr>
<tr>
<td>Renal Epi Cell casts</td>
<td>ATN</td>
</tr>
<tr>
<td>Broad, Waxy casts</td>
<td>CRF</td>
</tr>
<tr>
<td>Hyaline</td>
<td>Febrile, after exercise, diuretics (dehydration state) - Does not indicate renal disease</td>
</tr>
</tbody>
</table>

### Assessing patient with acute renal failure – Urinary Casts

<table>
<thead>
<tr>
<th>Cast Type</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red cell casts</td>
<td>Glomerulonephritis Vasculitis</td>
</tr>
<tr>
<td>White Cell casts</td>
<td>Acute Interstitial nephritis</td>
</tr>
<tr>
<td>Fatty casts</td>
<td>Nephrotic syndrome, Minimal change disease</td>
</tr>
<tr>
<td>Muddy Brown casts</td>
<td>Acute tubular necrosis</td>
</tr>
</tbody>
</table>
Renal

Treat hyponatremia slowly to prevent:

CENTRAL PONTINE MYELINOLYSIS
Neurology: Temporal Arteritis

Women > 50 y/o

Sx: New temporal h/a
    Transient visual loss
    Scalp TTP
    Jaw claudication
    PMR

Lab: ESR > 50

Tx: Prednisone 60 mg daily for 1-2 mo, slow taper.
ASA to decrease risk of stroke or vision loss
Neurology: Strokes/Bleeds

TPA timing for ischemic strokes
- Within 3-4.5 hours of event

Epidural Hematoma
- Middle meningeal artery
- Elliptical shape on noncontrast CT

Subdural Hematoma
- Bridging Veins
- Crescent shape on noncontrast CT
# Neurology: Dystrophies

## X-linked recessive:
<table>
<thead>
<tr>
<th>Inheritance</th>
<th>Disorder</th>
<th>Age</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duchenne</td>
<td>Pelvic and shoulder girdle; fatal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Becker</td>
<td>Slow progression</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Misc inherited:
<table>
<thead>
<tr>
<th>Inheritance</th>
<th>Disorder</th>
<th>Age</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limb-girdle</td>
<td>Pelvic and shoulder; Calf hypertrophy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Autosomal dominant:
<table>
<thead>
<tr>
<th>Inheritance</th>
<th>Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fascioscapulohumeral</td>
<td>Face and shoulder, moving down</td>
</tr>
</tbody>
</table>

## Myotonic
<table>
<thead>
<tr>
<th>Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Spasming” facial, SCM, distal ext; baldness, cataracts, gonadal atrophy, cardiac abnl, mental retardation, endocrinopathy</td>
</tr>
</tbody>
</table>
Surgery: Hemorrhoids

Thrombosed external hemorrhoid treatment:

< 48 hours after sx onset?
   EXCISION

48-72 hours after onset?
   SX TX, REASSURANCE
Geriatrics: Dementia

Aphasia- can’t understand and/or make speech
Apraxia- difficulty carrying out learned activities
Agnosia- unable to recognize objects

Lewy Body
   Visual hallucinations
   Parkinson’s

Frontotemporal
   Personality change
Geriatrics: Osteoporosis

Use T-score (compares to healthy young adults)

Osteoporosis
T-score $\leq 2.5$

Tx:
Calcium 1500 mg/day
Vit D 800 IU/day
Bisphosphonates 1\textsuperscript{st} line medications
Normal People

Yeah! Three day weekend!
Sleeping in, shopping, relaxing. Awesome!

Med Students

Woo a whole extra day to study, catch up on lectures, and maybe sleep in 'til 7:30!!!