Adult Dermatology Update
Part Two

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Other Dermatology

• Vitiligo
• Rosacea
• Lichen Planus
• Bullous Pemphigoid
• Leprosy
Vitiligo

- Disorder of pigmentation that is thought to be immune mediated
- Presents as white macular lesions
- Can affect skin anywhere on the body including hair and mouth
Vitiligo

Vitiligo Treatment

• Topical steroids (range from mid to super potency)

• Topical calcineurin inhibitors - Tacrolimus and pimecrolimus

• Psoralen plus UVA (PUVA)

• Narrow band UVB treatment

• Patient Information
  - Wear sunscreen with UVA and UVB protection
  - Wear protective eyewear
  - Avoid tattoos
  - Can wear make up to conceal lesions or use self tanner
Rosacea

• Inflammatory skin disorder

• Certain triggers like heat, microbes, exercise, stress, caffeine, spicy foods

• Usually present on the center of the face

• Erythematous base with papules and/or pustules

• Most frequent in fair skinned people

• Diagnosed by history and exam

• Treatment is aimed at decreasing the erythema by decreasing the inflammation
Rosacea

http://diseasespictures.com/wp-content/uploads/2013/05/Acne-Rosacea-5.jpg
Rosacea Treatment

- Metronidazole 0.75% gel or lotion apply twice daily
- Azelaic acid 20% cream or lotion, 15% foam or gel apply twice daily
- Ivermectin 1% cream apply once daily
- Duac (clindamycin 1% and benzoyl peroxide 5%) gel apply once daily

Patient Information
- Avoid triggers
- Sun exposure guidelines
- Cold weather wear a scarf or ski mask
- Green tinted makeup can reduce redness
- Treat your skin gently and avoid rubbing
Lichen Planus

- Chronic inflammation of the skin and mucous membranes
- May be immune mediated
- Usually affects ages 30-70

5 P’s of Lichen Planus
- Pruritic, planar, polygonal, purple (violaceous), papules or plaques

- Can have lesions in the mouth as well
- Presents as violaceous (purple) polygonal flat-topped papules and plaques. Pruritus is often severe
- Close inspection may reveal fine, white, reticulated networks known as Wickham's striae on the top of the lesion
Lichen Planus

http://www.hellenicdermatlas.com/photos/0000/2615/00002615_standalone.jpg

http://www.deraamin.com/site/images/clinical-pic/L/lichen_planus/lichen_planus153.jpg
Lichen Planus Treatment

• First line is topical steroids and oral antihistamines

• Second line
  - Oral steroids
  - Ultraviolet B (UVB)
  - Psoralen plus ultraviolet A (PUVA) phototherapy

• Mouth lesions can be treated with triamcinolone in orabase
  - Usually appear as white macules or linear lesions

• Patient Information
  - Wash and dry skin gently, lukewarm baths, etc.
  - Try not to scratch
  - If lesions are present in the mouth, follow good oral hygiene
  - Can tell them to use a soft toothbrush
Bullous Pemphigoid

- Autoimmune mediated
- Usually presents as bulla and may see darkened pink areas of old healed lesions
- May have a prodromal period of papular, eczematous pruritic rash
- Seen more commonly in older adults
- Can also occur in the mucous membranes (mouth commonly)
- Diagnosed by biopsy of the lesion usually
- Serum antibody testing may be helpful for IGG antibodies to BP
Bullous Pemphigoid


http://am-medicine.com/wp-content/uploads/2013/12/Fig.-157-Major-aphthous-ulcer-on-the-lower-lip..bmp
Bullous Pemphigoid Treatment

- High potency topical steroids, Clobetasol 0.5% cream
- Oral corticosteroids
- Second line treatments include methotrexate, tetracycline antibiotics, other antimicrobials like dapsone
- Treatment of the pruritis with antihistamines
- If oral lesions are present can use triamcinolone in orabase

Patient Education
- Do not pop blisters
- Discuss side effects of topical and oral steroids
- Diabetics and oral steroids
Leprosy

- Known as Hansen’s disease
- Caused by the acid-fast, rod-shaped bacillus Mycobacterium leprae
- Chronic infection that dates back to ancient China times
- Erythematous or hypopigmented papules, nodules or macules
- Lesions usually have diminished sensation
- Causes skin sores, mouth sores, nerve damage and muscle weakness
Leprosy

- Transmitted by close, frequent contact with droplets from the nose and mouth
- Patients may be ostracized due to lesions and deformity
- Usual ages affected 7-95
- 66% of new cases in 2015 were male
- May be related to armadillo exposure in the US
Leprosy

http://3.bp.blogspot.com/-EbRRx6it3oY/Vk8zgthZH_I/AAAAAAAAYE/SiLTrDK4XRM/s1600/pictures%2Bof%2Bleprosy.jpg

http://4.bp.blogspot.com/-WBGtSJNWLqE/TrdlKcYbBI/AAAAAAAALs/gLQrM780CSM/s1600/leprosy.jpg
Countries Where Leprosy is Widespread

• Bangladesh
• Brazil
• Democratic Republic of Congo
• Ethiopia
• India
• Indonesia
• Madagascar
• Myanmar*
• Nepal
• Nigeria
• Philippines
• Sri Lanka
• United Republic of Tanzania
Leprosy Treatment

- Multi drug approach with two or more antibiotics for 6-12 months
  - Dapsone, rifampin and clofazamine
- Anti Inflammatories for nerve pain
- Prednisone for inflammation
- Management of wound and potential loss of limbs
- Psychological support
- Patient Education
  - Call if skin lesions are not healing, muscle weakness, numbness.
  - Discuss proper wound care
  - Discuss signs and symptoms of infection
  - Also call for vision changes and mentation changes
  - Discuss appropriate care for amputees
Global Leprosy Strategy

• Elimination as health problem in 2000 and most countries in 2005
• Focus is early detection to reduce disability due to leprosy

Three Main Goals:
• Initiating action, ensuring accountability and promoting inclusion
  - Developing country specific plans
• Ensuring accountability
  - Strengthen monitoring and evaluation to objectively measure progress
• Promote Inclusion
  - Establish and strengthen partnerships with persons or communities or affected by leprosy
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Viral

• Herpes
• Zoster (shingles)
• Warts
Herpes

• Caused by herpes simplex 1 and 2
• Sexually transmitted
• Usually diagnosed by visualization, but can send viral culture
• Can shed virus even if wearing condoms
• Usually have the most recurrences during the first year
• Vesicular rash on erythematous base in genitalia
• Mouth sore on the outside of the lip
• Can also occur on the skin
• Burning and painful
• May have myalgias, headache and fatigue
• Rash peaks in one week and resolution by 2-4 weeks
Herpes Simples 1 and 2

Herpes Treatment

• Valacyclovir 1000 mg twice daily for 10 days for initial outbreak
  - 500 mg every 12 hours for 3 days or 1000 mg daily for 5 days
  - Suppression 1000 mg daily
  - If less than 10 outbreaks per year can decrease to 500 mg

• Acyclovir 400 mg three times daily for 10 days for first outbreak
  - 400 mg three times daily for 5 days
  - Suppression 400 mg twice daily

• Famciclovir 250 mg three times daily for 10 days
  - 1000 mg twice daily for one day
  - 250 mg twice daily

• Topical lidocaine gel 5% to genital lesions

• Lidocaine Viscous 2% for oral lesions

• NSAIDs orally for pain as well
Herpes Patient Information

- Begin medication as soon as you feel a tingling sensation
- Wear cotton underwear
- Keep genital area clean and dry
- Use mild soaps
- Wear loose fitting clothing
- Avoid touching eyes
- Ice packs or cool sitz bath can help with the pain
- Avoid sexual intercourse and oral sex when lesions are present
- Limit sexual partners
- Wear condoms and look for lesions prior to sex with a new partner
- Pregnant women may require c section when delivering if they have history of herpes
- Call for fever, headache, signs of infection and trouble drinking or urinating
Herpes Zoster (shingles)

- Due to varicella zoster virus (chicken pox)
- Dermatomal distribution with vesicles on an erythematous base
- Causes extreme pain in some cases
- This pain can persist for years
- Zostavax vaccination for prevention
Dermatomal Distribution
Herpes Zoster

Herpes Zoster Treatment

• Antiviral medication
  - Valacyclovir 1000 mg every 8 hours for 7 days
  - Acyclovir (cheaper) 800 mg 5 times daily for 7 days

• Gabapentin for nerve pain

Patient Information
  - Call for fever, disseminated rash, lesions to face or eyes
  - Usually not pruritic, but could have with healing lesions so discuss management of pruritis and to not scratch lesions
  - Report any vision changes
  - Advise to call right away if they suspect shingles
  - Advise shingles vaccination
Cutaneous Warts (Verruca)

- Due to human papillomaviruses
- Occur more commonly in children and young adults
- HPV1 plantar warts, HPV 6 and 11 affect the anogenital area
- Three main categories include: common warts (verruca vulgaris), plantar warts (verruca plantaris) and flat (plane) warts (verruca plana)
- Usually treat with salicylic acid or cryotherapy
- Can use duct tape (silver)
  - Use for six days, soak, then use pumice stone and reapply after 12 hours
Condyloma Acuminata

Genital warts

• Etiology human papillomavirus
• More than 30 strains of HPV infect the genital tract
• Most caused by HPV subtypes 6, 11, 40-45, and 51
• Transmitted through sexual contact
• Incubation period of 1 – 6 months
• Can be asymptomatic
• Can start out as light colored dots
• Advance to flesh colored papule that may have a cauliflower appearance. (May be friable or itch)
Warts


Condyloma Acuminata Treatment

• HPV 9 (types 6, 11, 16, 18, 31, 33, 45, 52, and 58)

• Podophyllotoxin gel or solution 0.5% twice daily for 3 days, off for four days and then repeats weekly for up to four times

• Trichloroacetic acid and Bichloroacetic acid (TCA and BCA) in office

• In extensive cases can use cautery, laser or excise lesions

• If lesions are not resolved 1-2 weeks after treatment advise to follow up

• Safe sex practices and avoidance while symptomatic
Syphilis

• Sexually transmitted disease caused by spirochete Treponema pallidum

• Can be diagnosed by visualization, but confirmed with serum testing

• May have the disease and no symptoms

• May have genital lesions or rash

• Important to check RPR (rapid plasma regain) when screening for other STDs

• Three stages primary, secondary, latent and Tertiary

• Risk factors are known exposure, MSM, HIV, high risk sex behaviors, incarceration and commercial sex work.

• May be reasonable to screen high risk individuals yearly
Syphilis

http://02e1b73.netsolhost.com/luxuria/signa/syphilis-rash-pictures-women-31.jpg

http://imaging.ubmmedica.com/shared/zone5/0802CFPPCSSF1.JPG
Syphilis Treatment

• Optimal treatment is Penicillin G (Bicillin L-A) IM 2.4 million units once for any stage under one year duration
• Over one year duration requires treatment of the above for three weeks
• Doxycycline 100 mg twice daily for 14 days

Patient Information
- Safe sex practices, but optimally avoidance until resolution
- Call for any headache, confusion, nausea, vomiting, stiff neck, fever, vision changes or fever
- Discuss when to call if lesions become infected
Case Study

45 year old male presents with rash for one month. Has been traveling quite a bit over the last year for work. Says the rash does not itch. Thinks it has been spreading throughout his trunk since onset. He denies new lotions, soaps, medications. He did go camping two months ago. He has had four sexual partners over the last year. He denies fever, chills, mouth sores, sob, chest pain.

No significant family or personal history

Physical Exam:
VS 37.1, 88, 18 127/82 POx 99%
Exam negative except for rash
What could this be?
24 year old female presents with rash for two weeks. Slightly pruritic. Has not had a rash similar to this in the past. No new soaps, lotions or medications. No one at home has similar symptoms. No recent travel or camping. She has been married for 10 years and has one sexual partner. No history of sexually transmitted diseases. No history of asthma. Denies fever, fatigue, pain, numbness, tingling, nausea, vomiting, chest pain and sob. Has not tried any treatment yet.

No significant family or personal history

Assessment:
VS 36.2, 88, 16, 122/64
Pulse ox 98%
Exam negative except for rash

Dermatologic Emergencies

- Rocky Mountain Spotted Fever
- Stevens-Johnson Syndrome
- Toxic Epidermal Necrolysis
- Necrotizing Fasciitis
- Erythroderma

**Epinephrine for allergic reactions**
Rocky Mountain Spotted Fever

- Tick-borne SFGR (Spotted Fever group Rickettsia) disease
- Can get from dog, cattle, rodents
- Can be fatal if not treated within 8 days of onset of symptoms
- At risk if participating in events that may expose them to ticks
- According to the CDC, it is a common reason for fever in returning travelers from South Africa
- Usually present with sudden onset of fever and headache
- May later have nausea, vomiting, conjunctival injection, lack of appetite and abdominal pain
- Rash presents initially as non pruritic macules
- Progresses to petechial rash (want to prevent this)
- May see a distinct lesion of blackened or crusted skin at site of tick bite
- Death and vasculitis are the most severe complications
Spotted Fever Rickettsia Rash

https://wwwnc.cdc.gov/eid/images/10-1943-F1.jpg
SFGR Treatment

• Doxycycline 100 mg twice daily for 14 days and to extend for three days after fever subsides (all ages indicated)

• Management of potential long term complications

• Wound care if indicated

• Do not be afraid to step up level of care if you suspect this is the etiology

• Patient Information
  - Prevention is same as Lyme
  - Should follow up immediately for any increase in symptoms
## Locations Worldwide for SFGR

<table>
<thead>
<tr>
<th>Disease</th>
<th>Species</th>
<th>Geographic Distribution</th>
<th>Clinical Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rickettsiosis</td>
<td><em>Rickettsia aeschlimannii</em></td>
<td>Africa, Mediterranean region</td>
<td>Fever, eschar, maculopapular rash</td>
</tr>
<tr>
<td>African tick-bite fever</td>
<td><em>Rickettsia africae</em></td>
<td>Sub-Saharan Africa, West Indies</td>
<td>Fever, eschar, maculopapular rash</td>
</tr>
<tr>
<td>Queensland tick typhus</td>
<td><em>Rickettsia australis</em></td>
<td>Australia, Tasmania</td>
<td>Fever, eschar, regional adenopathy, rash on extremities</td>
</tr>
<tr>
<td>Mediterranean spotted fever or Boutonneuse fever</td>
<td><em>Rickettsia conorii</em>&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Mediterranean region and Africa to Indian subcontinent</td>
<td>Fever, eschar (usually single), regional adenopathy, maculopapular rash on extremities</td>
</tr>
<tr>
<td>Far eastern spotted fever</td>
<td><em>Rickettsia helongiagensis</em></td>
<td>Northern China, Eastern Asia</td>
<td>Fever, eschar, maculopapular rash, regional adenopathy</td>
</tr>
<tr>
<td>An eruptive fever</td>
<td><em>Rickettsia helvetica</em></td>
<td>Central and northern Europe</td>
<td>Fever, headache, myalgia</td>
</tr>
<tr>
<td>Flinders Island spotted fever, Thai tick typhus</td>
<td><em>Rickettsia honei</em></td>
<td>Australia, Thailand</td>
<td>Mild spotted fever, eschar and adenopathy are rare</td>
</tr>
<tr>
<td>Japanese spotted fever</td>
<td><em>Rickettsia japonica</em></td>
<td>Japan</td>
<td>Fever, eschar(s), regional adenopathy, rash on extremities</td>
</tr>
<tr>
<td>Australian spotted fever</td>
<td><em>Rickettsia marmionii</em> subspecies</td>
<td>Australia</td>
<td>Fever, eschar, maculopapular or vesicular rash, adenopathy</td>
</tr>
<tr>
<td><em>Rickettsia massiliae</em> rickettsioses</td>
<td><em>Rickettsia massiliae</em></td>
<td>France, Greece, Spain, Portugal, Switzerland, Sicily, Central Africa and Mali</td>
<td>Fever, maculopapular rash, necrotic eschar</td>
</tr>
<tr>
<td>Rocky Mountain spotted fever, febré maculosa, Sao Paulo exanthematic typhus, Minas Gerais exanthematic typhus, Brazilian spotted fever</td>
<td><em>Rickettsia rickettsii</em></td>
<td>North, Central and South America</td>
<td>Fever, headache, abdominal pain, maculopapular rash progressing into papular or petechial rash (generally originating on extremities)</td>
</tr>
<tr>
<td>North Asian tick typhus, Siberian tick typhus</td>
<td><em>Rickettsia sibirica</em></td>
<td>Broadly distributed through north Asia</td>
<td>Fever, eschar(s), regional adenopathy, maculopapular rash</td>
</tr>
<tr>
<td>Lymphangitis associated rickettsiosis</td>
<td><em>Rickettsia sibirica mongolitimonae</em></td>
<td>Southern France, Portugal, China, Sub-Saharan Africa</td>
<td>Fever, multiple eschars, regional adenopathy and lymphangitis, maculopapular rash</td>
</tr>
<tr>
<td>Tick-borne lymphadenopathy (TIBOLA), <em>Dermacentor</em>-borne necrosis and lymphadenopathy (DEBONEL)</td>
<td><em>Rickettsia slovaca</em></td>
<td>Southern and eastern Europe, Asia</td>
<td>Necrosis erythema, cervical lymphadenopathy and enlarged lymph nodes, rare maculopapular rash</td>
</tr>
</tbody>
</table>

<sup>1</sup> Includes 4 different subspecies that can be distinguished serologically and by PCR assay, and respectively are the etiologic agents of Boutonneuse fever and Mediterranean tick fever in Southern Europe and Africa (*R. conorii* subs. *conorii*), Indian tick typhus in South Asia (*R. conorii* subs. *indica*), Israeli tick typhus in Southern Europe and Middle East (*R. conorii* subs. *israelensis*), and Astrakhan spotted fever in the North Caspian region of Russia (*R. conorii* subs. *caspiae*).

[https://www.cdc.gov/otherspottedfever/](https://www.cdc.gov/otherspottedfever/)
Stevens-Johnson Syndrome

- Syndrome most commonly due to medication reaction
- More common in men than women
- Can occur at any age
- NSAIDs, sulfa antibiotics, gout medications, seizure medication (tegretol), acetaminophen
- Pneumonia and herpes virus can induce SJS
- Diagnosis of HIV, radiation, malignancy, immunosuppressed more at risk
- More at risk if you have had SJS in the past.
- Prodrome of fever greater than 39 C and flu like symptoms
- Generalized erythematous exanthem that presents on face and trunk and then extends throughout the body (pain is disproportionate to rash)
- Erythematous macules with pruritic center (may include mouth and eyes)
Stevens-Johnson Syndrome and Toxic Necrolysis


http://www.acepnow.com/wp-content/uploads/2015/02/ACEP_pg12a-600x336.png
Toxic Epidermal Necrolysis

- SJS is less than 10% of the body affected
- TEN is when greater than 30% of the body is affected
- May see more sloughing of skin with TEN
- Will probably present with sepsis and have more potential for airway issues
- Nikolsky Sign

- Treatment
  - Immediate transport
  - Intubate these patients if you suspect airway impaired
  - Fluids
  - Pressors
  - Antibiotics
Necrotizing Fasciitis

• Usually due to streptococcus, CA-MRSA, klebsiella, proteus and e coli

• May affect skin, muscle and fascia

• Patient usually present with associated of shock or toxicity

• Very deadly

• Prompt emergency management can save function, limbs and lives

• Diagnosed by exam, culture and x-ray
Necrotizing Fasciitis Treatment

• Promptly increase to highest level of care available

• IV antibiotics
  - Initially beta-lactam-beta-lactamase inhibitor, plus Clindamycin IV
  - Then can tailor to the sensitivity

• Support emergent symptoms such as hypotension and tachycardia
  - Can start fluids and give acetaminophen in field
  - Vasopressors if available
  - Position in Trendelenburg position if necessary
  - Cover wound and protect yourself as well as patient
Erythroderma

- Thought to be cytokine mediated
- Most often due to worsening psoriasis, atopic dermatitis and drug reactions
- Less often due to malignancy, infection, immunologic depression and infections
- Erythema and scaling to greater than 90% of skin surface
- Linear crusted erosions and secondary lichenification may develop

Treatment
- Treatment of underlying etiology
- Increase level of care
- Fluid support
- Pressors if hypotensive
Necrotizing Fasciitis and Erythroderma

http://jamanetwork.com/data/Journals/DERM/11712/dst10073f2.png

Keratosis

- Seborrheic
- Actinic
Seborrheic Keratosis

- Most common benign skin lesion
- Unknown origin
- No potential for malignancy

Characteristics
- Smooth surface with tiny round, embedded pearls
- May be rough, dry and cracked
- Appear stuck on the surface
Actinic Keratosis

• Common sun-induced premalignant lesions
• Incidence: Increases with age, light complexion
• Clinical presentation: Slightly roughened area that often bleeds when excoriated
  – Progresses to an adherent yellow crust
  – Size 3-6 mm
  – Common location: scalp, temples, forehead, hands
Seborrheic and Actinic Keratosis

http://img.medscapewi.com/pi/meds/ckb/54/8354tn.jpg

https://www.dermquest.com/imagedev/large/016193HB.JPG
Skin Cancer

• Basal Cell
• Squamous Cell
• Malignant Melanoma
Basal Cell Carcinoma

• Most common malignancy found in humans

• Presenting complaint: bleeding or scabbing sore that heals and recurs

• Risk factors: fair skin, sun exposure, tanning salon, previous injury

• Men > women: Incidence increases after age 40

• 85% appear on the head and neck; 25-30% on the nose alone

• Basal cell carcinomas rarely metastasize they grow and spread to adjacent locations

• Very common to be recurrent

• Clinical Types: Nodular, superficial, pigmented, cystic, sclerosing, nevoid
Squamous Cell Carcinoma

• Arises in the epithelium and is common in middle-aged to elderly population

• Occurs in two ways:
  - Areas of prior radiation or thermal injury and in chronic ulcers
  - Actinically damaged skin

• Risk factors: Sun exposure, renal transplant recipients, Immunosuppressed, areas of chronic inflammation or thermal burns

• Location: Sun exposed regions of scalp, back of the hands, and superior aspect of the pinna
Malignant Melinoma

- Usually arises from the cells of the melanocytic system
- Can metastasize to any organ including the brain
- Lifetime risk: 1:90
- Risk factors include sun exposure, family history and immunosuppression
- Characteristics: Black, brown, red, white or blue
- Types
  - Superficial spreading
  - Lentigo maligna
  - Nodular melanoma
  - Acral lentiginous melanoma
Basal and Squamous Cell


Malignant Melanoma

Assessing for Skin Cancer

ABCDs of Malignant Melanoma

– Asymmetry: \( \frac{1}{2} \) does not look like the other half
– Borders: Irregularity
– Color: Multiple or uneven
– Diameter enlargement: Greater than 6 mm
– Enlarging
– Feeling: Pain, tenderness or itching
Promoting Healthy Skin Behaviors

- Know your risk factors
- Self skin assessment
- Avoidance of excessive sun exposure
- Avoidance of peak time 10a-4p
- Avoidance of tanning beds
- Wear at least a 30 SPF broad spectrum at least 30 minutes prior to sun
- Reapply every two hours
- Call for sores that won’t go away, red patches, change in shape, size or color of moles and moles that grow quickly, bleed or itch
- Follow instructions from dermatology if advised to have skin checks every 6-12 months
- Advise of increased risk in fair skin and hair, family history of skin cancer and moles on the skin
- Always ok to refer to dermatology for suspicious lesions
Questions
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- The Only Three Topical Steroids You’ll Need, Family Practice News March 1, 2012.
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Resources


https://www.amazon.com/Ferris-Fast-Facts-Dermatology-Practical/dp/1437708471/ref=sr_1_1?s=books&ie=UTF8&qid=1485121279&sr=1-1&keywords=ferris%27s+fast+facts+in+dermatology
Every life deserves world class care.