Tropical Medicine is only Skin Deep

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Tropical Dermatology Summary

- Skin lesions - 20% post travel clinic patients
- Hx - Epidemiology is everything! (travel and exposure history)
- Px - Morphologic pattern very helpful approach (lesion location, pattern, progression)
- Px - Visual inspection alone often “diagnostic”
- If it moves, it is probably alive … and a parasite!
Case 1

- 23 yo woman on vacation in December for 2 wks in Mexico
- back in Canada for three months
- recurrent “insect bites”; but it’s still winter (Jan-Mar)!
- very itchy
Case 1 “rash”
Case 1 diagnosis

What is the most likely diagnosis?

A. Jellyfish stings
B. Sea urchin spines
C. Scabies
D. Bed bug bites
E. Papular urticaria

“Breakfast, Lunch & Dinner”
Case 1 management

What treatment would you recommend?

A. 5% permethrin cream  No
B. Topical steroid  Yes
C. Mebendazole  No
D. Albendazole  No
E. Antihistamines  Yes
Case 2

- 35 yo woman on vacation for 2 weeks in Bali
- back in Canada for 3 weeks
- persistent recurring itchy skin rash
- saw walk-in clinic physicians - tried several topical creams (antihistamine, steroid) with minimal effect
- travelled with sexual partner of 5 years
Case 2 “rash”
Case 2 diagnosis

What is the most likely diagnosis?

- A. Jellyfish stings  (Sea Bather’s Eruption)
- B. Syphilis
- C. Scabies
- D. Bed bug bites
- E. Body lice bites
Case 2 – Sea Bathers’ Eruption
Case 2 management

What treatment would you recommend?

A. 5% acetic acid  Yes
B. Topical steroid  Yes
C. Topical antifungal  No
D. Selenium sulphide  No
E. Antihistamines  Yes
Papular Lesions (discreet)

- Arthropod bites (mosquitoes, sand flies, bed bugs, fleas)
- Papular urticaria (recurrent)
- Miliaria rubra (prickly heat)
- Swimmer’s itch (cercarial dermatitis)
- Sea bather’s eruption
- Scabies
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- Swimmer’s itch (cercarial dermatitis)
- Sea bather’s eruption
- Scabies
Case 3

- 28 yo woman immigrant from W Africa, in Canada X5 years
- visited friends and relatives in W Africa; just returned 2 weeks ago
- presents with pruritic skin rash on lower leg
- healthy during entire trip; no sexual contacts
- no pre-travel immunizations; no chemoprophylaxis
Case 3 “rash”
Case 3 diagnosis

What is the most likely diagnosis?

A. Tinea corporis
B. Syphilis
C. Atypical Scabies
D. Pityriasis (tinea) versicolor
E. Psoriasis
Case 3 management

What treatment would you recommend?

A. 5% permethrin cream  
   - No

B. Topical steroid  
   - Yes – 1% HC

C. Topical antifungal  
   - Yes - 1% ciclopirox

D. Oral fluconazole  
   - Second line

E. Selenium sulphide  
   - No
Maculopapular Lesions (diffuse)

- Superficial fungal infections
- Pityriasis (tinea) versicolor
- Secondary syphilis
- Eczema
- Psoriasis
- Drug allergy
Maculopapular Lesions (diffuse)

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Maculopapular Lesions (diffuse)

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- Pityriasis (tinea) versicolor
- Secondary syphilis
- Eczema
- Psoriasis
- Drug allergy
Case 4

• 25 yo male travelled to Belize on jungle ecotourism expedition X 2 wks
• back in Canada for 4 days
• 5 day hx of “infected insect bite” on his right ankle
• Received amoxicillin clavulanate at walk-in clinic with no effect
• Sharp pain in wound with moderate serosanguinous discharge
Case 4 continued

• Physical examination:
  – healing wound right ankle
  – used his Swiss army knife to extract a “bug”!
Case 4 “living organism”
Case 4 diagnosis

What is the most likely diagnosis?

A. Spider egg pouch
B. Fly maggot
C. Tungiasis
D. Sea urchin
E. “What the 

Botfly myiasis – *Dermatobia hominis*
Case 4 – Botfly Myiasis

The lifecycle of the botfly involves several stages:
- **Female** fly lays eggs on the host animal's skin.
- The eggs hatch into larvae, which penetrate the host's skin and migrate to subcutaneous tissue.
- The larvae feed on the host's tissue and cause myiasis, a condition caused by the presence of maggots in the host's tissue.
- The larvae develop into pupae and eventually pupate in the soil.

The map on the right indicates the distribution of botfly myiasis in the Americas.
What treatment would you recommend?

A. Azithromycin  No
B. Cloxacillin  No
C. Doxycycline  No
D. Ciprofloxacin  No
E. None - reassurance  Yes
Nodular Lesions

- Bacterial furunculosis (pyoderma)
- Furuncular myiasis
- Tungiasis
Nodular Lesions

- Bacterial furunculosis
- Furuncular myiasis
- Tungiasis
Nodular Lesions

- Trypanosomiasis
- Sparganosis
- Cysticercosis
- Onchocerciasis
- *Loa loa*

- Consult ID/Tropical Medicine/Dermatology
Case 5

• 5 yo child on a family vacation in Barbados
• back in Canada for 2 weeks
• 2 wk history intensely itchy rash on legs
• saw several physicians - topical creams (antifungal, antibiotic, steroid) with no effect
• child (and mom) not sleeping and desperate
• healthy during entire trip
• pre-travel immunizations (none)
• buried in sand up to his waist by siblings!
Case 5 “rash”
Case 5 diagnosis

What is the most likely diagnosis?

A. Jellyfish stings
B. Cat hookworm  \textbf{Cutaneous Larva Migrans}
C. Infected insect bites
D. Tinea corporis
E. Impetigo (GAS)
Case 5 management

What treatment would you recommend?

A. Ivermectin          Second line (SAP)
B. Contact precautions  No
C. Mebendazole         No
D. Albendazole         Drug of choice (SAP)
E. Exclusion from preschool  No
Case 6

- 37 yo woman in Dominican Republic 2 wks beach holiday resort
- back in Canada for 2 days
- presents with nonpruritic skin rash; very worried about weird parasite or cancer (melanoma)
- healthy during entire trip; no sexual contacts
- pre-travel immunizations (HAV/HBV)
- likes to suntan
Case 6 “rash”
Case 6 diagnosis

What is the most likely diagnosis?

A. Tinea corporis
B. Syphilis
C. Lyme disease
D. Melanoma
E. Factitious disorder
Case 6 - Conclusion

- Asked – did you drink lime juice containing drinks?
- Answered – how did you know?!!!
- Phytophotodermatitis – harmless, resolves on its own
- Correct Diagnosis – “Lime disease”
Linear Lesions

- Cutaneous larva migrans
- Larva currens (*Strongyloides stercoralis*)
- Phytophotodermatitis
- Portuguese man of war
Linear Lesions

- Cutaneous larva migrans
- Larva currens (*Strongyloides stercoralis*)
- Phytophotodermatitis
- Portuguese man of war
Case 7

• 53 yo male on 2-week beach resort holiday in the Caribbean (Lesser Antilles)
• just back with worsening skin rash to arms and legs X 5 days; painful, not itchy; no fever
• did not swim in ocean, but prepared (filleted) red snapper fish; a few mosquito bites
• saw MD and put on cloxacillin for one week with some improvement, but now much worse 3 days after stopping the antibiotic
Case 7 continued

- Physical examination:
  - afebrile
  - tender enlarged left axillary lymph nodes
  - “peeling” sunburn
  - “rash” on left arm and right lower leg
Case 7 “rash”
What is the most likely diagnosis?

A. Anthrax
B. Staphylococcal skin infection
C. Vibrio species skin infection
D. Atypical mycobacterial skin infection

Case 7 diagnosis
After sampling a pustule for C&S, what empiric treatment would you recommend?

<table>
<thead>
<tr>
<th>Option</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td>A. Amoxicillin</td>
<td>No</td>
</tr>
<tr>
<td>B. Azithromycin</td>
<td>No</td>
</tr>
<tr>
<td>C. Ciprofloxacin</td>
<td>No</td>
</tr>
<tr>
<td>D. Doxycycline</td>
<td>Best</td>
</tr>
<tr>
<td>E. Trimethoprim/sulfamethoxazole</td>
<td>OK</td>
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</tbody>
</table>
Case 7 Outcome

- he returned to the clinic much improved after a 3-week course of doxycycline
- the C&S came back growing 4+ ......

MRSA
Ulcerative Lesions

- Ecchyma (pyoderma)
- Tick eschar
- Leishmaniaiasis
- Anthrax
Ulcerative Lesions

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Ulcerative Lesions

- Ecchyma (pyoderma)
- Tick eschar
- Leishmaniasis
- Anthrax
IS IT CONTAGIOUS?
an actual drawing, handed to a flight attendant on a Quantas flight by an 8 yr old girl

dear Captain
My name is Nicola I'm 8 years old, this is my first flight but I'm not scared. I like to watch the clouds go by. My mum says the crew is nice. I think your plane is good, thanks for a nice flight don't fuck up the landing.

Luv Nicola
XXX
Tropical Medicine is only Skin Deep

Tropical Dermatology Summary

• Epidemiology is everything! (travel and exposure history)
• Morphologic pattern very helpful approach (papular, maculopapular, nodular, linear, or ulcerative)
• Visual inspection alone often "diagnostic"