Travel-Related Disorders

• Health problems are self-reported by 22 to 64 percent of travelers to the developing world
• Up to 8% sick enough to seek health care
• Three to ten percent of travelers experience skin, hair or nail disorders


Travel-Related Disorders

Sun, Sun, Sun

• Burns
• HSV reactivation
• Phototoxic drug
• Plant extracts in fruits, beverages
Travel-Related Disorders

Water Hazards

• Jelly fish
• Man-of-War
• Sea Urchins
• Coral cuts
• Seabather’s eruption
• Swimmer’s itch

Travel-Related Disorders

Athropod Bites

• Local reactions
• Systemic reactions
• Infestations
• Disease transmission

Tropical Diseases

• Scabies
• Pyoderma
• Tinea
• Pediculosis
• Molluscum

Travel-Acquired Dermatoses

Outpatients
- Cutaneous larva migrans
- Pyoderma
- Arthropod bites
- Myiasis
- Fever and Rash
- Leishmaniasis

Clin Infect Dis 1995;20:542

Travel-Acquired Disease

- Most frequent causes of admission
  - Malaria (Africa)
  - Unidentifiable febrile illness
  - Dengue fever (Asia)
  - Leishmaniasis (Latin America)
- 71% male, probably due to higher risk taking behavior


Old World Leishmaniasis

- US military, 2002-2004
- Afghanistan, Iraq, and Kuwait, 522 cases
- 360 of 20,000 after one year in Iraq
- Incubation period such that may be seen in our practices

JAAD 2005, 52: 977
Cochrane Database Syst Rev. 2009; (2): CD004834
Onchocerciasis

- Filarial parasite Onchocerca volvulus
- Transmitted by blackfly, Simulium
- Africa, Central and South America, Saudi Arabia

Onchocerciasis

- Incubation period months
- River blindness
  - 1 to 4% of infected persons
  - 4th leading cause of blindness


Onchocerciasis

SOWDA

- Pruritic papular eruption
- One anatomical quarter or limb
- Travelers to endemic areas
- Hyperpigmentation, edema
- D/DX: scabies, contact dermatitis

Int J Dermatol 2005, 44: 125
**Onchocerciasis**

**Diagnosis**

- Skin snip with saline for microfilaria
- Excision of onchocercomas
- Filarial serology
  - Onchocerciasis, loiasis and filariasis
- Onchocerca specific ELISA
- PCR of tissue and blood

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**Loiasis**

- Filarial parasite Loa Loa
- Transmitted by deerfly, Chrysops
- West and Central Africa

(From Int J Infect Dis. 2012; 16: e649)
Loaiasis Laboratory

- Microfilaria in blood 20% (daytime)
- Parasite in loose tissue
  - Eyelid, genital skin, conjunctiva
  - Frenum of tongue, breast
- Eosinophilia 60 – 80%

Rickettsia Conorii

- Member of spotted fever group of rickettsioses
- Found in southern Europe, Africa, Middle East
- Most common imported rickettsiosis in North America
- Vector: Rhipicephalus sanguineus
- Transmitted to man via tick bite

Boutonneuse Fever

- Clinical trial: fever, exanthem, tache noire
- Usually self limited
- Fatal in 2.5% of cases
- Risk factors: old age, DM, G6PD deficiency
- Treatment: doxycycline, ciprofloxacin

**Cutaneous Larva Migrans**

- Dog or cat hookworm larva
  - *Ancylostoma*
- Contaminated soil


**Furuncular Myiasis**

- Invasion of tissue by fly larva
- Human botfly – *Dermatobia hominis*
- Tumbu fly – *Cordylobia anthropophagia*

Int J Dermatol 2010; 49: 1092
Arch Dermatol 1990;126:199