Tropical Dermatology: Selected Topics

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DISCLOSURE OF RELATIONSHIPS WITH INDUSTRY

Jose Dario Martinez MD, IFAAD, ADA, ISD, EADV
Tropical Dermatology: Selected Topics.
June 12-13, 2025

DISCLOSURES

I do not have any relevant relationships with industry.

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Tropical Dermatology

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CDC: GeoSentinel Surveillance Network 2008

Table 4-02. Skin lesions in returned travelers, by type of lesion

Skin Lesion	Percentage (n = 4,742)
Cutaneous larvae migrans	9.8
Insect bite	8.2
Skin abscess	7.7
Superinfected insect bite	6.8
Allergic rash	6.5
Rash, unknown etiology	5.5
Dog bite	4.3
Superficial fungal infection	4.0
Dengue	3.4
Leishmaniasis	3.3
Myiasis	2.7
Spotted fever group rickettsiae	1.5
Scabies	1.5

Modified from Lederman ER, Weld LH, Elyazar IR, et al. Dermatologic conditions of the ill returned traveler: an analysis from the GeoSentinel Surveillance Network. Int J Infect Dis. 2008;12(6):593–602.

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Traveler's maladies in The Americas

Medical problems in travelers:

- **Fever**
- Acute diarrhea
- **Skin lesions**

Most common skin lesions:

- Cutaneous larvae migrans
- Insect bites
- Bacterial infections
- Rash

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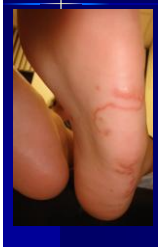
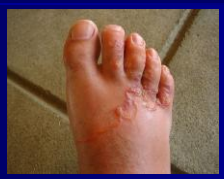
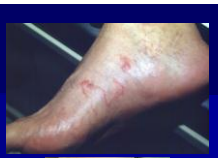
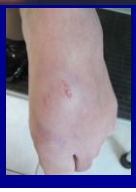
Clinical cases #1









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Tropical Dermatology

Semin Cutan Med Surg 2014;33:133-135

Tropical dermatology: cutaneous larva migrans, gnathostomiasis, cutaneous amebiasis and trombiculiasis

Kristian Eichelmann MD,[1] Kenneth J. Tomecki MD,[2] and José Darío Martínez MD[3]

Abstract

In today's world, many people can travel easily and quickly around the globe. Most travel-related illnesses include fever, diarrhea, and skin disease, which are relatively uncommon in returning travelers. We review four of the most common emerging infestations and skin infections in the Americas, which are important to the clinical dermatologist, focusing on the clinical presentation and treatment of cutaneous larva migrans, gnathostomiasis, cutaneous amebiasis, and trombiculiasis.

Semin Cutan Med Surg 33:133-135 © 2014 Frontline Medical Communications

There are numerous skin diseases outside the clinical grasp of many dermatologists due to various factors: declining incl-

FIGURE 1. Creeping eruption on the plantar area of the foot. Courtesy: José Darío Martínez, M.D., Monterrey, México.

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Cutaneous larva migrans: Key points

- Etiology in Mexico: ***A. caninum***
- Incubation period: 5-15 days
- Most cases occur in Gulf of Mexico beaches
- Beaches with dogs (feces)
- **Walking barefoot, lying on the beach**
- Spring break & summer / **travelers´disease** (most common)
- Creeping eruption, 1-2 cm/day, very itchy ► larvae die in weeks

Eichelmann K, Tomecki K, Martinez JD. Semin Cutan Med Surg 2014;33:133-135

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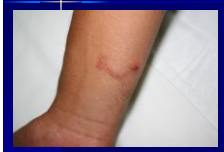
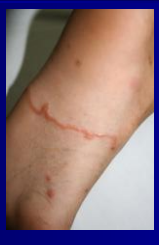
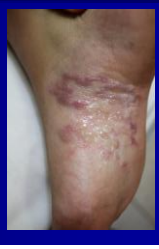
CLM: creeping eruption

Courtesy Marco Quintanilla MD, Chetumal, Mexico







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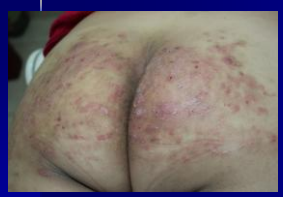
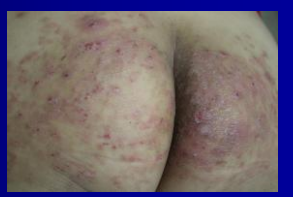
CLM: creeping eruption

Courtesy Marco Quintanilla MD, Chetumal, Mexico





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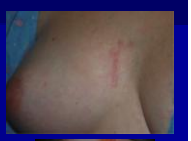
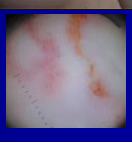
Cutaneous larva migrans: Dx Pearls

- **Diagnosis is clinical**
- CBC:
  - Eosinophilia
- High IgE
- **Dermoscopy can be a useful tool**
- Confocal microscopy is an expensive tool
- Rare complication: **Löffler´s syndrome***

Semin Cutan Med Surg 2014;33:133-135

*Indian J Dermatol 2016;61(2):190-192**





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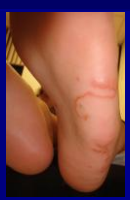
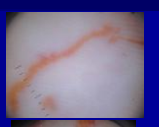
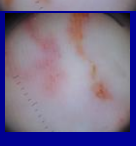
Cutaneous larva migrans

Dermoscopy







Eichelmann K, Tomecki K, Martinez JD.
Semin Cutan Med Surg 2014;33:133-135

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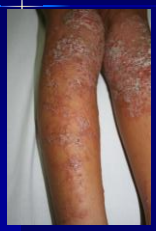
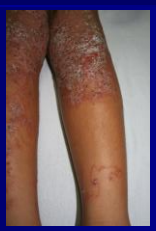
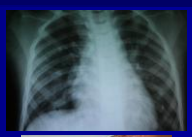
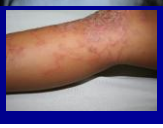
Löffler´s syndrome due to CLM

Courtesy Marco Quintanilla MD, Chetumal, Mexico

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Cutaneous larva migrans: Rx Pearls

- **Rx Topical Pearl: Ethyl chloride spray** (1-2 lesions)
  - Off label
- **Rx first line: albendazol PO: 400 mg/daily/3-5 days**
- Rx second line: ivermectin PO: 200 µg/kg/once
- Topical corticosteroids for inflammation & itch
- Oral antihistamines

Semin Cutan Med Surg 2014;33:133-135
Annals of Medicine and Surgery 84 (2022)104904
DOI: 10.1016/j.amsu.2022.104904


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Travelers´ maladies

Am J Clin Dermatol 2016;17(5):451-462

Am J Clin Dermatol
DOI 10.1007/s40257-016-0203-7

THERAPY IN PRACTICE

Got the Travel Bug? A Review of Common Infections, Infestations, Bites, and Stings Among Returning Travelers

Matthew P. Vasievich[1] · Jose Dario Martinez Villarreal[2] · Kenneth J. Tomecki[1]

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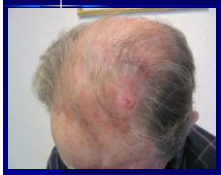
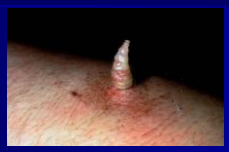
Clinical cases #2

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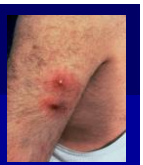
Myiasis: Key points

- Infestation of the skin by fly larvae
- ***Dermatobia hominis***
- Incubation period: 1-3 months
- Boil like lesions, #1-3 (furuncular form)
- Pain, movement inside
- **Travelers' disease** (South Mexico, Belize)
- Dx: **Ultrasound**, Dermoscopy*, CT scan

Seminars in Pediatric Surgery 2012;21:142-150
*Int J Dermatol 2021;60:840-843**

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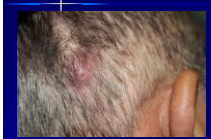
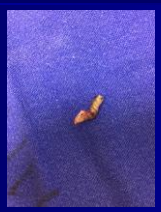
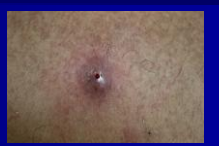
Myiasis: furuncular form

Courtesy Marco Quintanilla MD, Chetumal, Mexico

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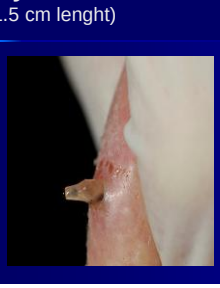
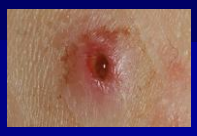
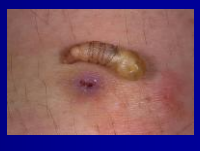
Myiasis: furuncular / larvae

(1.5 cm lenght)







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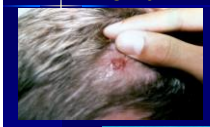
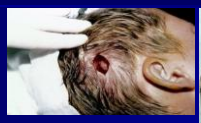
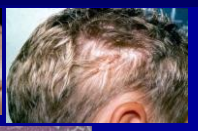
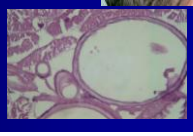
Furuncular myiasis in a traveler:

Surgery









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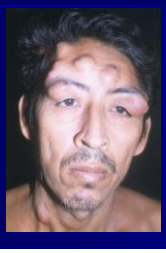
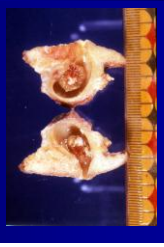
Tumor myiasis: surgery + oral ivermectin

Courtesy Amado Saul MD, Mexico City





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Myiasis in travelers:

Rx Pearl

DDx, Prevention & Treatment

- DDx: abscesses, furuncles, boils
- Prevented with repelents (DEET), appropriate clothes
- Vaseline, pork fat, mineral oil, **chimo** ▶ top of the furuncle
- Topical 1% ivermectin solution
- **Ivermectin PO: 200 µg/kg/once**
- **Surgical extraction /** clean the wound properly

Vasievich MP, Martinez JD, Tomecki KJ.
Am J Clin Dermatol 2016;17:451-462

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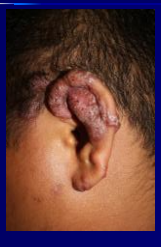
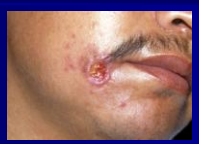
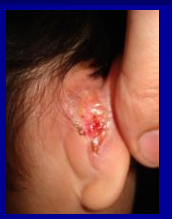
Clinical cases #3







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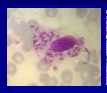
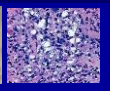
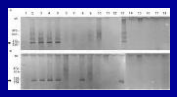
Cutaneous Leishmaniasis: Key points

- Neglected tropical disease
- Occurs worldwide
- Transmitted by a sandfly bite
- CL: around one million new cases/year
- **Zoonosis** (dogs)
- **Travelers' disease**
- Incubation period: 1-2 months
- Dx: direct smear/biopsy/Montenegro/**PCR**

Vasievich MP, Martinez JD, Tomecki KJ. Am J Clin Dermatol 2016;17:451-462

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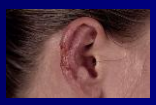
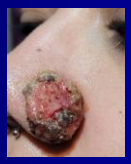
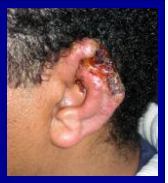
CL: "Chiclero´s ulcer" in travelers

Hand photo Courtesy of Ted Rosen MD, Houston Texas, USA

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Cutaneous Leishmaniasis: Epidemiology in Mexico (Yucatan)

- Vector: *Lutzomyia olmeca*
- Parasite: *Leishmania mexicana*
- Th1 immunologic reaction
- Most common lesion: nodule ► ulcer
- Dx: clinical, biopsy, PCR
- **Rx: Glucantime***
  - IM, daily until healing, 96% successful cases regardless # and locations of lesions

Salud Publica Mex 2015;57:58-65

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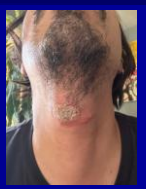
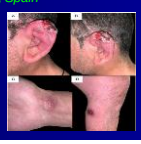
Cutaneous leishmaniasis associated with anti-tumor necrosis factor-α drugs: an emerging disease

Clinical and Experimental Dermatology 2017;42 (3):331-334
https://doi.org/10.1111/ced.13061

Images in Medicine

- Atypical cutaneous leishmaniasis in a patient under anti-TNFα therapy

Inés Tortajada Torralba, et al. Valencia, Spain
Medicina Clinica Practica 2024;7(4)
DOI: 10.1016/j.mcpsp.2024.100466

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Cutaneous Leishmaniasis

Clinical photos courtesy Marco Quintanilla MD, Chetumal, Mexico


Rx Pearls

- ***L. mexicana***: IL Rx or systemic Rx
- ***V. braziliensis / L. panamensis***: systemic Rx
- **Systemic Rx:**
  - Risk of developing MCL
  - Failure local Rx
  - Size, number and location of lesions
  - Lymphatic spread

LeishMan Recommendations for Treatment of Cutaneous and Mucosal Leishmaniasis in Travelers, 2014
Johannes Blum MD[1,2,3], Pierre Buffet MD[4,5], Leo Visser MD[6], Gundel Harms MD[1], et al. Article first published online: 19 DEC 2013
DOI: 10.1111/jtm.12089© 2013 International Society of Travel Medicine

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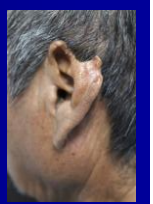
CL: Rx Pearl

Clinical photo courtesy Marco Quintanilla MD, Chetumal, Mexico

Treatment for travelers´

- Pentavalent antimonials: first line Rx
  - Sodium stibogluconate* / **meglumine antimoniate****
  - * In USA only CDC / ** Not in USA
    - **Intralesional: 20 mg/kg/day x 20 days**
    - Systemic: 20 mg/kg/day x 20-28 days IV/IM



J Am Acad Dermatol 2015;73:911-926
Curr Treat Options Infect Dis 2015;7(1):52-62

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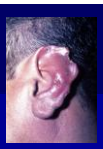
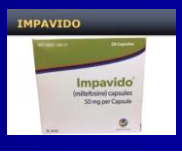
CL: Rx Pearl



Treatment for travelers´

- Amphotericin B, IV (liposomal)
- Dosing: 3 mg/kg/day/7 days, followed by 3 mg/kg x BIW/3 weeks
- Miltefosine, PO, FDA (2014)
  - 2.5 mg/kg/day/28 days ► alternative option ($$$$)



Curr Treat Options Infect Dis 2015;7(1):52-62
J Am Acad Dermatol 2015;73:911-926

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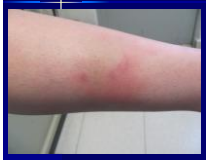
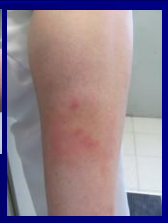
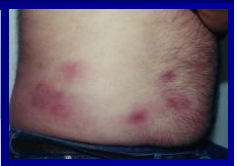
Clinical cases #4

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Gnathostomiasis: Key points

- Caused by *Gnathostoma spp*
- Ecuador, Peru, Brazil
- In Mexico is an emerging disease (Nayarit, Yucatan)
  - ***G. binucleatum***
- **Eating "ceviche**" (raw fish with lemon)
- **Freshwater raw fish** (tilapia, crapie) / sushi
- **Travelers' disease /** incubation period 1 mo.
- Subcutaneous: most common clinical form

Semin Cutan Med Surg 2014;33:133-135

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Gnathostomiasis

Dx, DDx & Rx Pearls

- Visceral involvement: liver, eyes, CNS
- Biopsy: eosinophilic panniculitis
- Dx: CBC (eosinophilia), ELISA
  - **Immunoblot test specific L3 antigen 24 k-Da band**
  - DDx: erythema nodosum, panniculitis
- Best treatment: surgery (when you find the larvae)

Semin Cutan Med Surg 2014;33:133-135

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Gnathostomiasis: Rx Pearl

Treatment

- **First line: albendazole PO: 400-800 mg/BID/4 weeks**
- Second line: ivermectin PO: 200 µg/kg/2 days
  - Repeat treatment in the case of Ivermectin
- Oral corticosteroids
- In some cases both drugs are used together to improve resolution*

Eichelmann K, Tornecki K, Martinez JD. Semin Cutan Med Surg 2014;33:133-135
*Kathyleen Nogrado et al. Food and Waterborne Parasitology 33 (2023) e00207**

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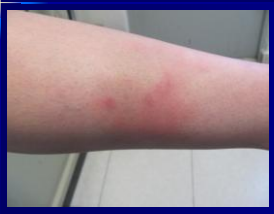
Gnathostomiasis before and after ivermectin treatment + oral steroids

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Tropical Dermatology

"Skin souvenirs"

Conclusions

- International travelling, adventure, and sports trips are common
- Climate change expands the range of vectors
- Tropical skin conditions are on the rise
- Dermatologists need to be alert for unfamiliar tropical diseases
- Dermatologists could face skin maladies in travelers, migrants & refugees
- Recognize bizarre and rare cutaneous infections

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Multumesc,Thank you, Merci, Danke, Gracias!

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ISD invite you…to Rome!

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