Nextillo
THE WONDER HAS A NAME

NEXTILLO_

#MADEEASY

PARASITIC INFECTIONS:CUTANEOUS LEISHMANIASIS, FILARIASIS, DRACUNCULIASIS

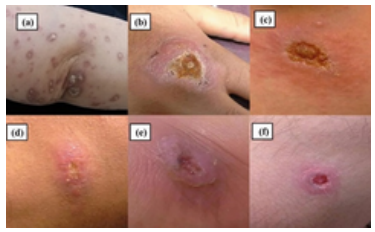
Nextillo
THE WONDER HAS A NAME

Nextillo
THE WONDER HAS A NAME

PARASITIC INFECTIONS: CUTANEOUS LEISHMANIASIS, FILARIASIS, DRACUNCULIASIS

CUTANEOUS LEISHMANIASIS

- ***Cutaneous leishmaniasis is a parasitic skin disease caused by Leishmania species.***
- ***It is prevalent in tropical and subtropical regions (Middle East, Africa, South America).***



Pathogenesis

- ***The Leishmania parasite enters the skin through the bite of a sandfly.***
- ***Inside the host, it infects macrophages, leading to localised or disseminated skin lesions.***

Clinical Features

- ***Localised Cutaneous Leishmaniasis:***
  Starts as a small papule at the site of the sandfly bite.
  The lesion gradually enlarges into an ulcer with a raised border and a central crust.
  Lesions are usually painless.
  Imagine the skin being slowly eaten away, leaving a crater-like sore that can become crusty, like a scabbed-over wound.

- ***Diffuse Cutaneous Leishmaniasis:***
  Characterized by widespread skin lesions (often nodules) that do not ulcerate.
  Lesions may spread over the body but tend to persist, causing disfigurement.

Nextillo
THE WONDER HAS A NAME

PARASITIC INFECTIONS: CUTANEOUS LEISHMANIASIS, FILARIASIS, DRACUNCULIASIS

- ***Mucocutaneous Leishmaniasis:***
  Ulceration and destruction of mucous membranes, particularly in the nose, mouth, and throat, can occur after primary cutaneous infection.

Diagnosis

- ***Microscopy: Demonstration of the parasite in skin smears or biopsy.***
- ***PCR: Molecular testing to identify Leishmania species.***
- ***Culture: Growing the parasite in special media from biopsy samples.***

Management

- ***Sodium stibogluconate is the mainstay treatment for leishmaniasis.***
- ***Amphotericin B used for severe or refractory cases.***
- ***Cryotherapy may be effective for localized lesions.***
- ***Prevention***
  Reducing contact with sandflies by using insect repellent, wearing protective clothing and sleeping under insecticide-treated bed nets.

FILARIASIS

- ***Filariasis is caused by parasitic nematodes (worms).***
- ***The most common types affecting the skin are lymphatic filariasis (Wuchereria bancrofti, Brugia malayi).***

Pathogenesis

- ***After being transmitted by a mosquito bite, the filarial larvae migrate to the lymphatic system where they mature into adult worms.***
- ***Chronic infection results in lymphatic obstruction and lymphedema.***

Clinical Features

- ***Lymphedema and Elephantiasis:***
  Early symptoms: mild swelling of the limbs.
  With chronic infection, massive lymphedema develops, leading to skin thickening, ulcerations, and a pebble-like appearance resembling the skin of an elephant.
  Imagine your skin swelling and hardening, becoming like an elephant's leg!
- ***Chyluria: Presence of lymph in urine, causing it to appear milky white.***
- ***Dermatolymphangioadenitis: Acute inflammation of the skin and lymph nodes***

Nextillo
THE WONDER HAS A NAME

PARASITIC INFECTIONS: CUTANEOUS LEISHMANIASIS, FILARIASIS, DRACUNCULIASIS

Diagnosis

- ***Blood Smears: Detection of microfilariae in blood samples***
- ***Ultrasound: Can detect adult worms in the lymphatic system***
- ***Antigen Testing: Blood tests for filarial antigens.***

Management

- ***Diethylcarbamazine (DEC): Main treatment for killing microfilariae and adult worms.***
- ***Ivermectin: Often used in combination with DEC to kill microfilariae.***
- ***Antibiotics: Doxycycline targets the symbiotic bacteria within the worms, weakening them.***
- ***Supportive Care: Elevation, compression bandages and skin care to manage lymphedema.***
- ***Prevention***
  - ***Vector Control***
  - ***Regular administration of DEC and albendazole in endemic areas to reduce transmission.***

DRACUNCULIASIS (GUINEA WORM DISEASE)

- ***Dracunculiasis is caused by the parasitic worm Dracunculus medinensis.***
- ***The disease is transmitted by drinking water contaminated with water fleas infected with the parasite larvae.***
- ***The worm migrates through the host's tissues, emerging painfully from the skin.***

Eradication in India

- ***India was declared free of dracunculiasis in 2000***
- ***Steps Taken for Eradication:***
  - ***Clean Water Supply: Provision of safe drinking water to prevent ingestion of infected water fleas.***
  - ***Filtration: Educating communities to filter drinking water through fine mesh cloth to remove water fleas.***
  - ***Raising awareness about the importance of avoiding contaminated water sources.***
  - ***Identifying and isolating cases to prevent transmission.***

Clinical Features

- ***Emerging Worm:***
  - ***A blister forms on the skin, often accompanied by burning pain.***
  - ***When the blister ruptures, the worm slowly emerges over several days.***
- ***Imagine a rope slowly being pulled out from under your skin—painful and long-lasting, like an endless thread.***
- ***Secondary Infections: Bacterial infections can occur at the site***