

Tropical Dermatology

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Travel History is important

Where exactly has the patient been?

- **Which countries?**
- **Rural or urban?**
- **Dates of travel, when did symptoms begin?**

What exactly has the patient been doing?

- **New sexual partner(s)?**
- **Fresh water contact?**
- **Exposure to sick people?**

Immunisations before travel?

Malaria prophylaxis?

Any other medication or past medical history?

Causes of skin disease while travelling

- **underlying systemic infections (fever + rash)**
- **insect bites**
- **local bacterial and fungal infections**
- **local or systemic parasitic infections**
- **allergic reactions**
- **exposure to UV light**
- **pre-existing problem**

Fever and Rash



25 year old English man
Holiday in Zimbabwe for 3 months
Became unwell on plane home

- Fever
- Rash
- Generalised lymphadenopathy

This photo was taken 2 days after
onset of symptoms

What else would you like to know?
What investigations would you request?

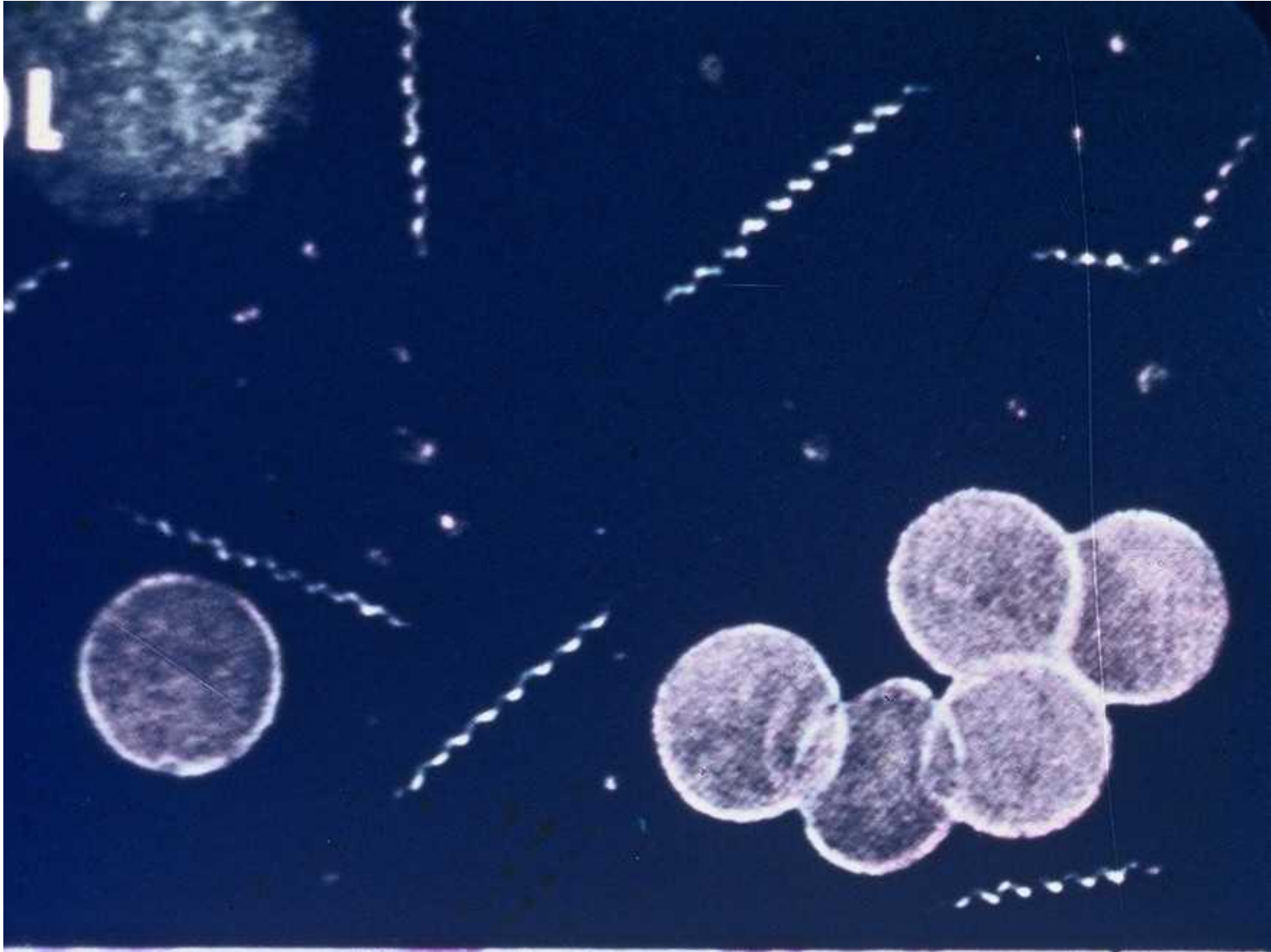


History

- What was he doing in Zimbabwe?
- Did he visit any game parks?
- Did he swim in any lakes or rivers?
- Did he have any new sexual partners?
- Any contact with sick people?
- Immunisations, malaria prophylaxis?
- Previous medical history?



Dark field microscopy



Investigations

- Full blood count and differential normal
- Abnormal lymphocytes noted on blood film
- Infectious mononucleosis test negative
- EBV IgG +, IgM -
- LFTs, U&E normal
- ESR 23, CRP 18
- Syphilis serology negative
- HIV antibody test negative
- HIV p24 antigen positive

Diagnosis

- Primary syphilis
- HIV seroconversion illness

30 year old English man

- Holiday in Barbados for 10 days,
- Returned 7 days ago
- Itchy foot started on his last day in Barbados
- Getting worse
- No immunisations before travel
- Travelled with family









Cutaneous Larva migrans

- Caused by dog or cat hookworm, which cannot penetrate the human dermis
- Itchy ++
- Resolves without treatment when larva dies, but may last several weeks
- Diagnosis: Clinical
- Treatment: Albendazole 400mg or ivermectin 0.2mg/kg stat, or topical thiabendazole

HTD, London 1995

80 year old English man

- Itchy rash lasting a few hours has appeared on his chest, back or abdomen several times in the past few years
- What else would you like to know?



Further History

- Not been outside Europe since 1945
- Was a prisoner of war in Burma 1941-45
- Otherwise well with no medical problems
- On no medication

Examination:

- No abnormality found, skin normal
- Investigations?

Investigations

- FBC normal apart from eosinophilia
- LFTs, U&E, CRP, ESR normal
- Urinalysis normal
- CXR normal
- Stool microscopy negative
- Serology for strongyloides positive

Larva currens

- Transient itchy rash lasting a few hours
- Caused by *Strongyloides stercoralis*

Treatment

- Ivermectin 0.2mg/kg stat, repeat after 5 days
or
- Albendazole 400mg daily x 3

25 year old Gambian woman, 6 months pregnant
Non-itchy generalised, macular, hyperpigmented rash
Nothing else to find on examination
Investigations?



Investigations

- RPR positive, titre 1:128
- TPPA positive

Diagnosis:

- Secondary syphilis

Treatment:

- Benzathine penicillin 1 million units IM stat

Condylomata lata of secondary syphilis



Gambian man aged 40
Sore on penis for several weeks
Non-itchy generalised rash 3 days



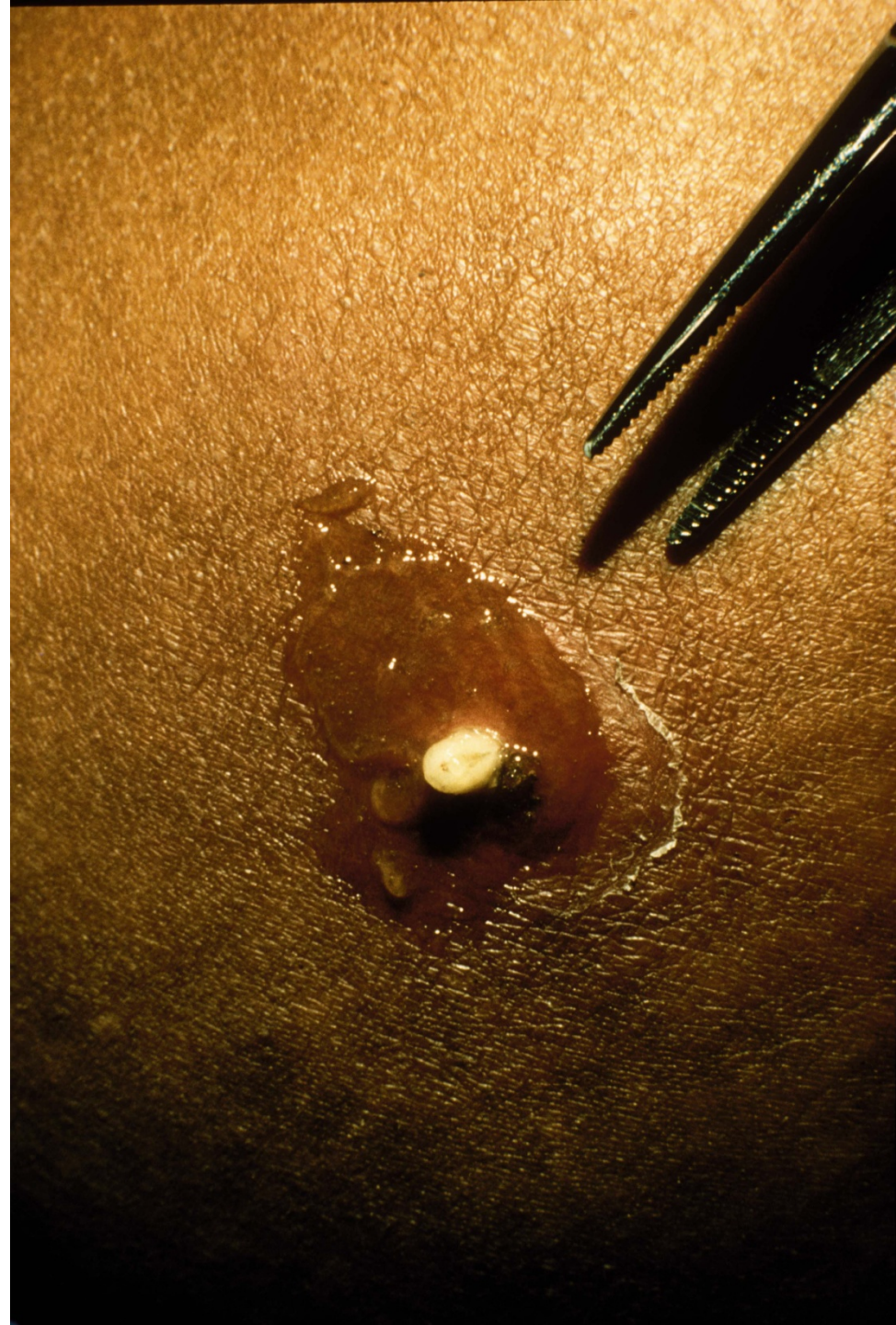
30 year old English man living in The Gambia, West Africa
Two painful lesions for 2 days
What would you look for on examination?



Cutaneous myiasis
(Tumbu fly)

Cause:

Cordylobia anthropophaga



25 year old English botanist with itchy feet

He has been working in the rain forest in Gabon for the past 2 months

What is the diagnosis? How should he be treated?



Jiggers (*Tunga penetrans*)

Female and eggs should be removed with a scalpel





18 year old English student

Itchy skin around left shoulder for 2 months

Has been teaching in a primary school in rural Cameroon for 6 months

Investigations?



Onchocerciasis

- Skin snips for microfilaria



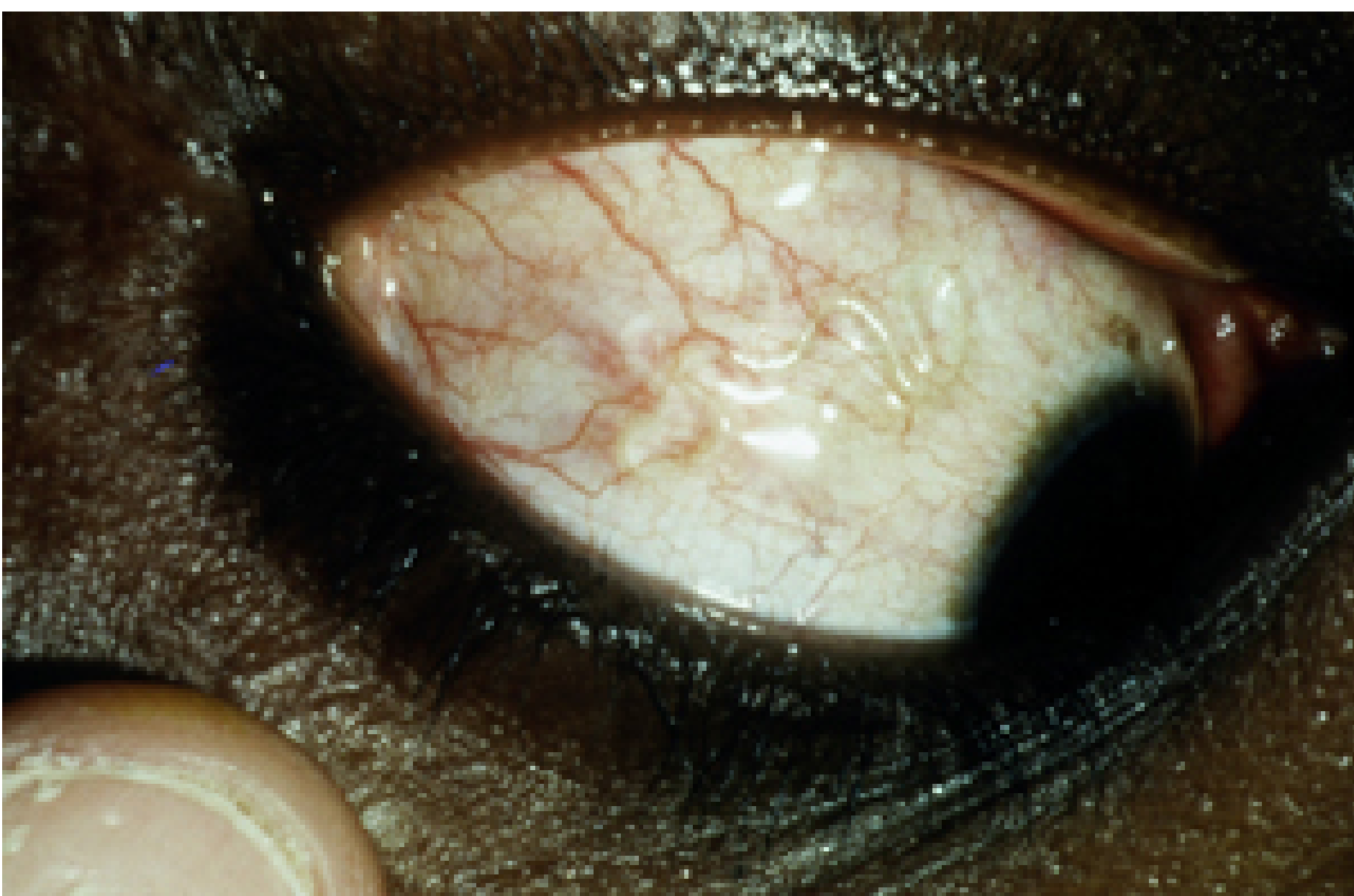
- Vector: Blackfly (*Simulium* spp)
- Treatment: Ivermectin

Farmer from Sierra Leone
Itchy skin for many years
What else would you like to know?
What signs will you look for?
What investigations will you request?
How will you manage this patient?



40 year old English man
Works on an oil rig in Nigeria
Painless swelling R hand 5 days
What else would you like to know?
What investigations will you request?





Loa loa

Vector

- *Chrysops* flies

Diagnosis

- History
- Blood film for microfilaria

Treatment according to microfilarial load

Low : Di-ethyl carbamazine (DEC) for 3 weeks

Moderate: Ivermectin stat, then DEC 3 weeks

High: Albendazole 3 weeks with initial steroid cover,
then DEC 3 weeks

35 year old British soldier, returned from 3 months in Afghanistan
Moderately painful swelling of eyelid for one month
Otherwise well and no other abnormality on examination
Investigations?



35 year old soldier

- Biopsy: *Leishmania* amastigotes seen
- PCR: *Leishmania major*

Treatment

- Intralesional sodium stibogluconate three times weekly for 2 weeks

Skin problems in returned travellers at a tropical unit in Paris

• Caumes, E et al 1995	<u>%</u>
• Cutaneous larva migrans	25
• Pyoderma	18
• Arthropod related dermatitis	10
• Myiasis	9
• Tungiasis (jiggers)	6
• Urticaria	6
• Rash with fever	4
• Leishmaniasis	3
• Fungal, scabies, STDs – each	2

35 year old English doctor with itchy hands for 2 weeks
Has been working in a mission hospital in Sierra Leone
Differential diagnosis?







Scabies



Scabies with secondary infection



Infected scabies in a Gambian child



8 year old Ghanaian boy

- Painful swelling of finger for three weeks
- Painless ulcers on legs and face for several weeks
- What else would you like to know?
- What investigations would you request?
- How would you manage this patient?





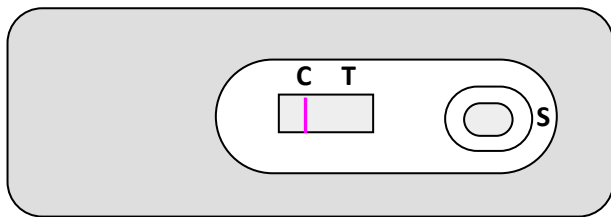


What else would you like to know?

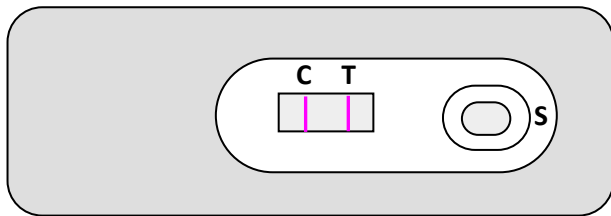
- Has he received treatment elsewhere?
- Any other illness in the family?
- Anyone else in the community with similar problems?

Investigations

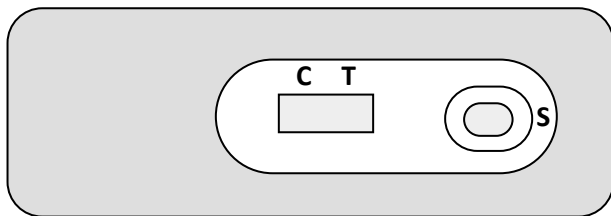
- Full blood count normal
- Rapid syphilis test positive



Negative



Positive



Invalid

Yaws: An endemic treponematoses

Cause:

Treponema pallidum subsp *pertenue*

Diagnosis

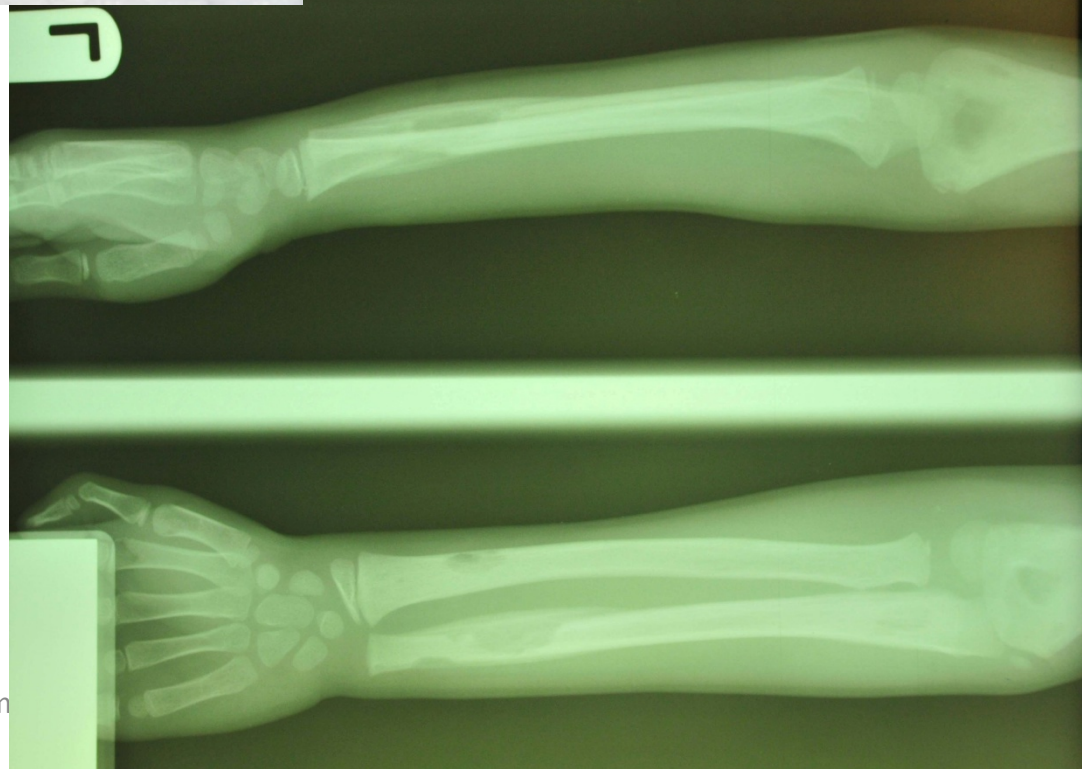
- Characteristic clinical features BUT cannot be reliably diagnosed clinically as similar ulcers may be caused by other bacteria

Mitjà O et al [*Haemophilus ducreyi* as a cause of skin ulcers in children from a yaws-endemic area of PNG](#). *Lancet Glob Health* 2014;2:e235-41.

- Latent infection is common
- Serological test is needed

Which of these is Yaws?





chrom

Management

- Benzathine penicillin 50,000 units/kg (max 1.2 million units) single dose IM

OR

- Azithromycin 30mg/kg (max 2G) single dose by mouth

Mitja O et al. Lancet 2012; 379: 342-7

OH!

THANK YOU



Case ST

- Gambian girl aged 4 years, from Banjul
- Painful swelling left lower femur 2 months, biopsied 2 weeks ago
- Intermittent fever

Examination: Weight 14kg

Thin. Submandibular, axillary and inguinal lymphadenopathy

Swelling above left knee. Not hot.

Purulent discharge from biopsy site

Knee joint normal

Case ST

- 2 weeks later developed disseminated skin lesions
- leg unchanged



Case ST

Biopsy result: Yeasts of *Histoplasma capsulatum*
var. *duboisii*

African Histoplasmosis

Dubois A et al. Ann. Soc.belge Med. Trop.1952; 32: 569-84

- *Histoplasma capsulatum* var. *duboisii*
- Isolated from lymph node aspirate from a Belgian man in Congo with cervical and axillary lymphadenopathy
- In culture morphologically and antigenically identical to *H. capsulatum*
- Yeast form 12-15 μ in longer diameter (cf. *H. capsulatum*, 2-3 μ)

Case ST (continued)

Treatment:

Amphotericin B IV: 5mg daily increasing by 1mg every second day to 14mg for a total of 36 days

2 months later:

- leg completely healed
- skin lesions resolved
- weight 16kg
- discharged





