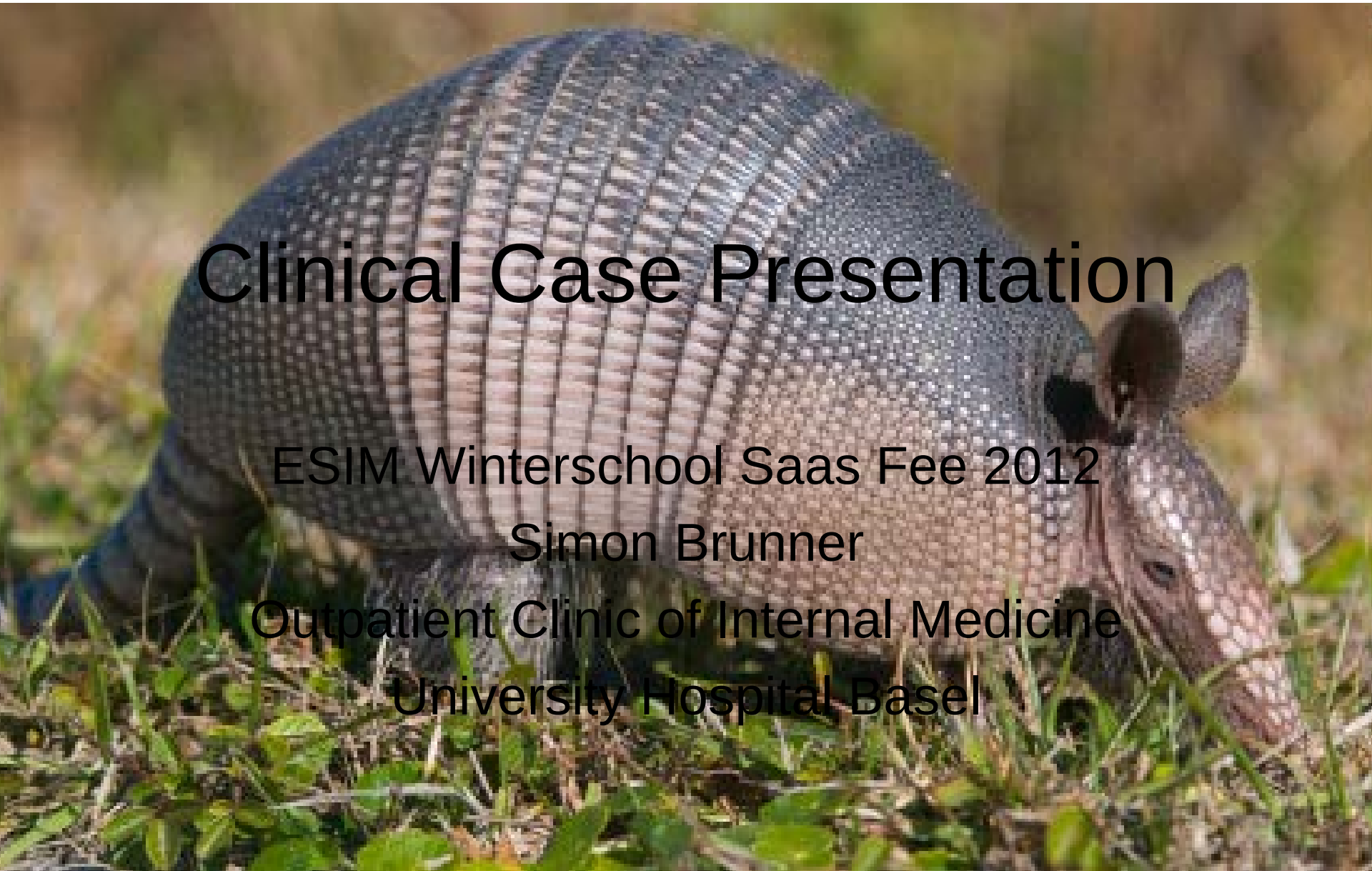

Clinical Case Presentation

ESIM Winterschool Saas Fee 2012

Simon Brunner
Outpatient Clinic of Internal Medicine
University Hospital Basel

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E. R., 22 y.o. male from Brazil

- Initial clinical presentation in July 2011
  - presentation in emercency room due to erythema of the face and urticaria of the thorax and the left foot
  - Suspected cellulitis: treatment with amoxicillin/clavulanic acid $\rightarrow$ receding of rash

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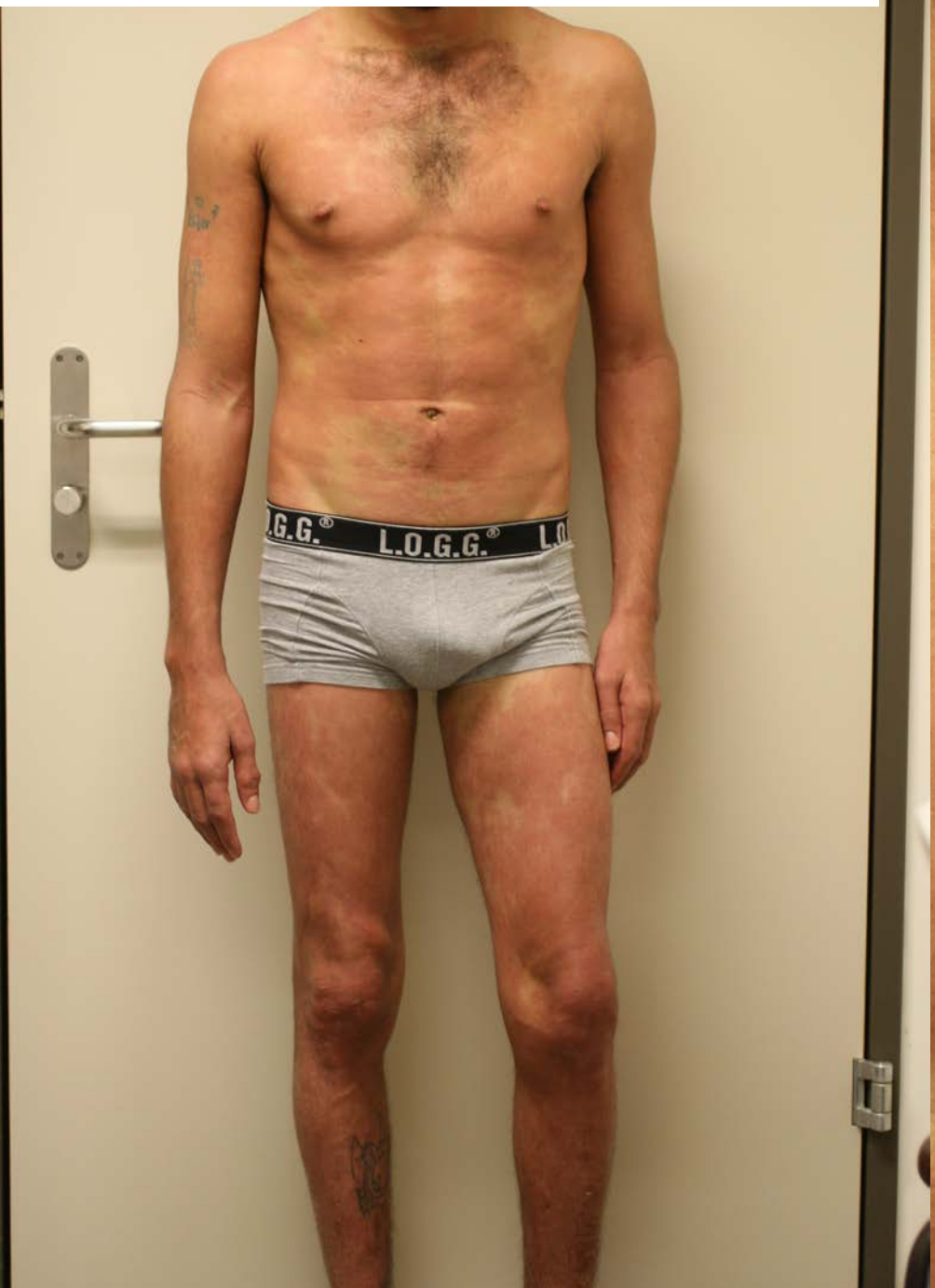
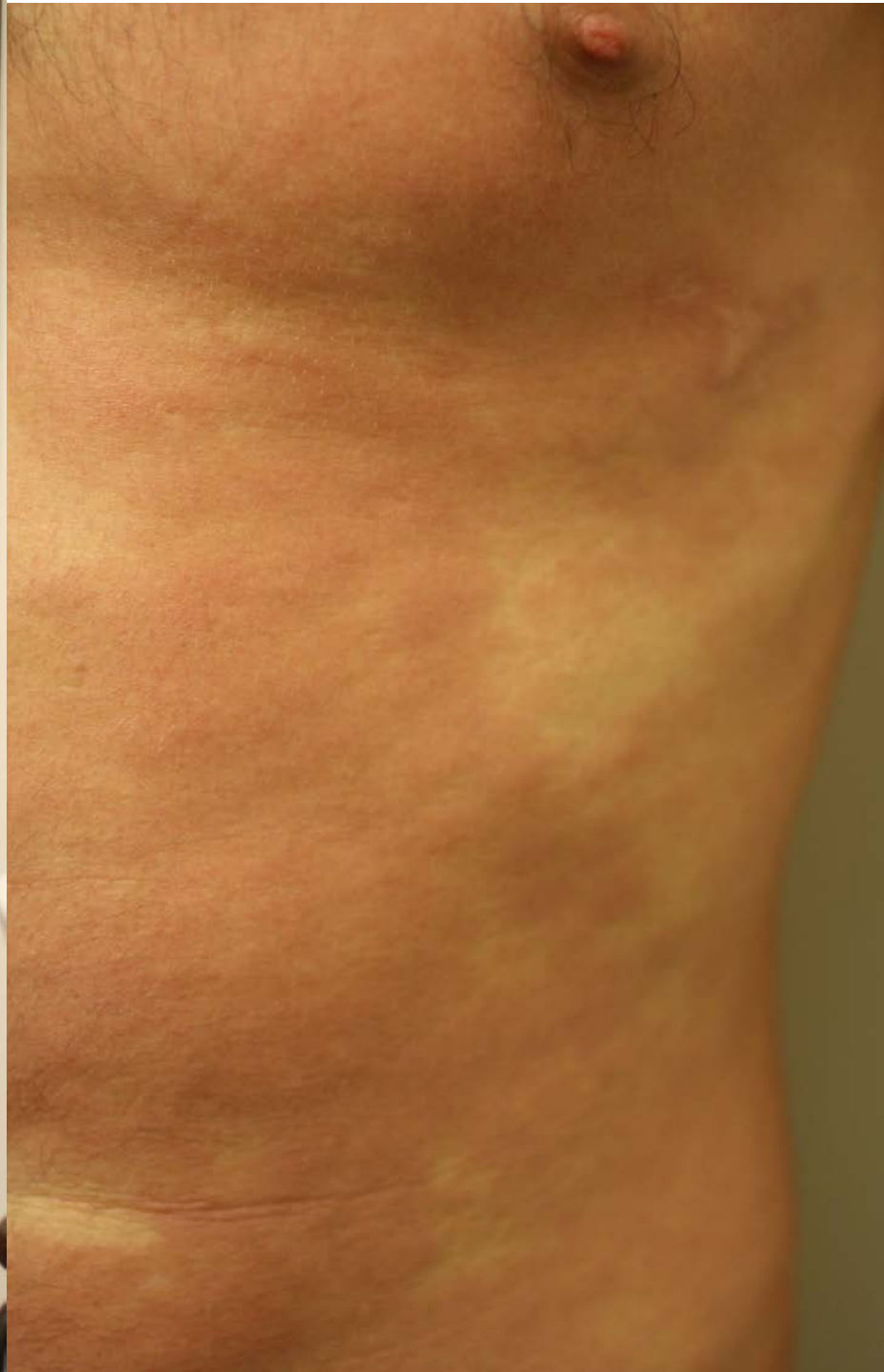
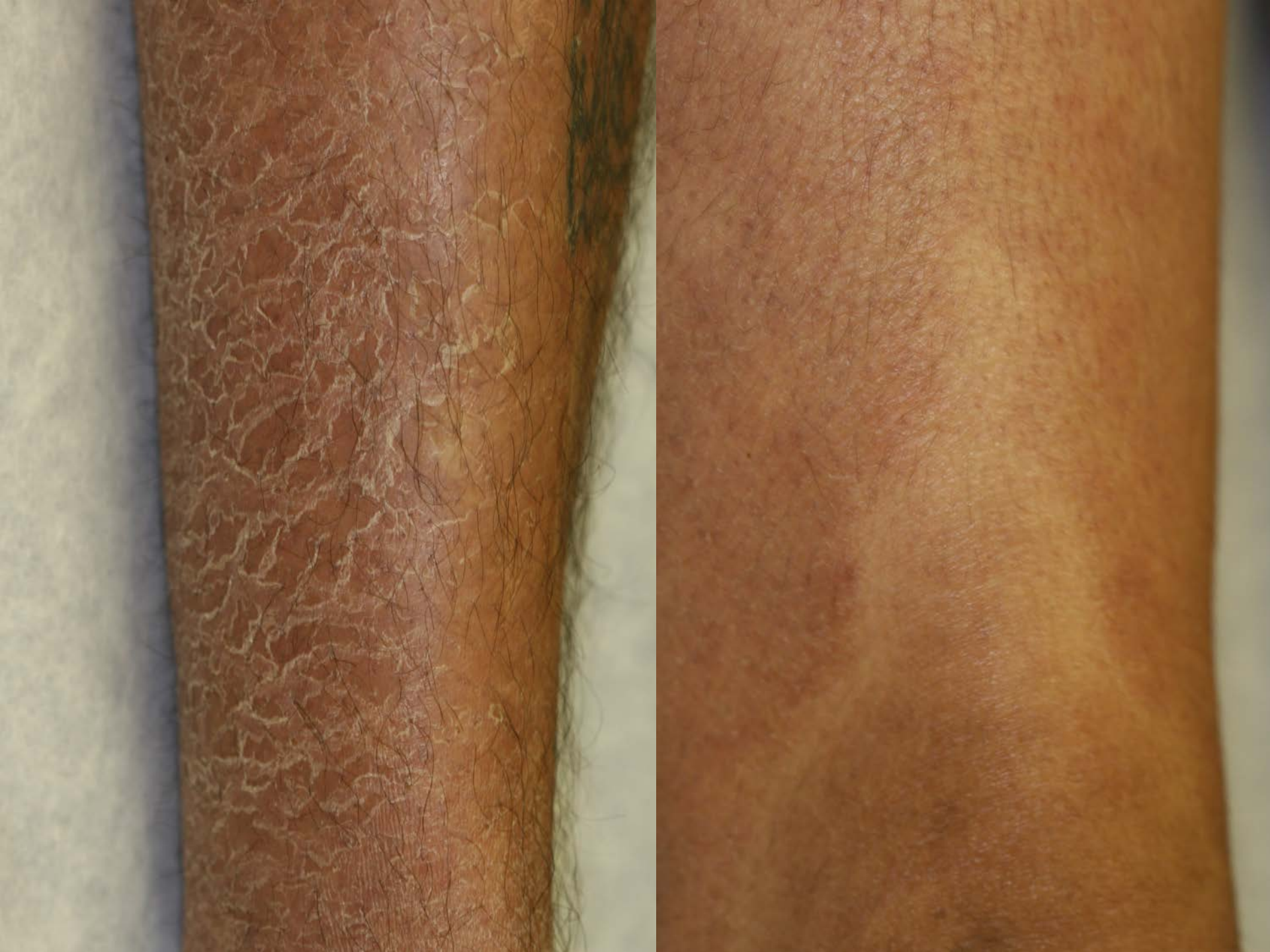
E. R., 22 y.o. male from Brazil

- Second clinical presentation in August 2011
  - non-itching erythematous macules of the whole body with hypopigmented areas and
  - axillary and inguinal lymphadenopathy
  - weakness of extensor muscles of the feet and hands
  - sensory loss not attributable to dermatomes
  - arthralgia of the small joints of both hands and both feet
  - weight loss of 12 kg in three months


L.O.G.G.





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Work up?

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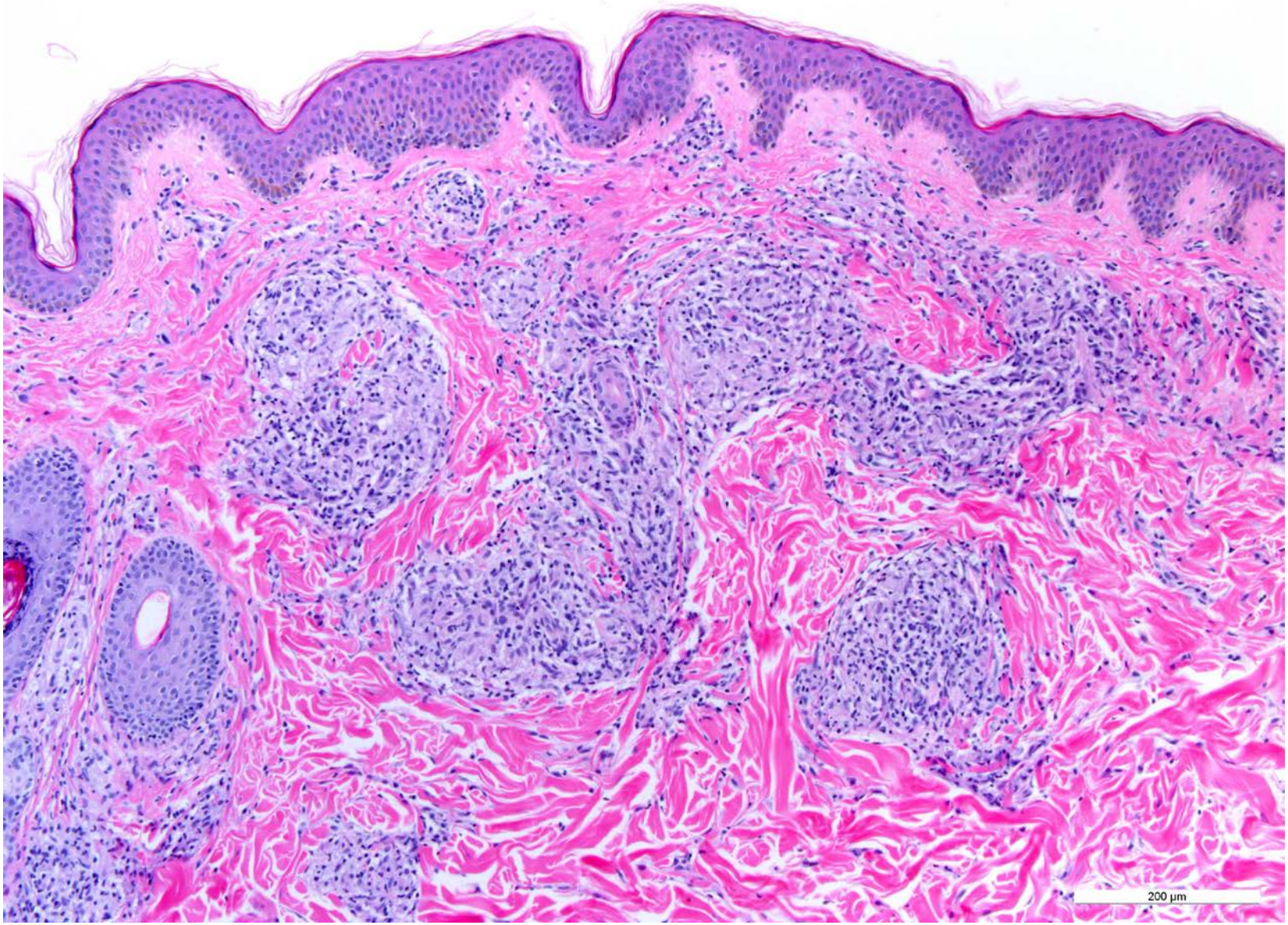
Blood work

- Leucocytes 7.5 x 10^9/l (3.5 - 10 x 10^9/l)
  - Eosinophiles 1.45 x 10^9/l (0 - 0.3 x 10^9/l)
- Hemoglobin 144 g/l (140 - 180 g/l)
- C-reactive Protein 1.4 mg/l (<10 mg/l)
- Creatinine 77 µmol/l (eGFR >60 ml/min)
- HIV screen negative
- Interferon γ-Test (T-Spot®.TB) negative
- Hepatitis B/C negative



Epithelioid cell granuloma without central necrosis

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Summary

- Erythema
- Neurologic symptoms
- Weight loss
- Arthralgia
- Eosinophilia
- Acute renal failure
- Granuloma in skin biopsy

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Differential diagnosis?

- Urticaria
- Drug rash
- Sarcoidosis
- Infection with non-tuberculous mycobacteria
- Granuloma anulare

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Development

- In skin biopsy: PCR for mycobacteria-DNA positive

Mycobacterium leprae

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Hypothesis for diagnosis

1. Leprosy: tuberculoid borderline to mid-borderline
2. Erythema nodosum leprosum (type 2 immunologic reaction)
3. Acute renal failure, most likely leprosy-associated interstitial nephritis

Treatment

- Multiple drug therapy (MDT) for 12 months according to WHO
  - Rifampicin 600 mg once monthly
  - Dapsone 100 mg daily (cave: G6PD-deficieny → screening)
  - Clofazimine 300 mg once monthly and 50 mg daily
- Prednisone 1 mg/kg

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Short overview of leprosy

- Pathogen: Mycobacterium leprae
- Involvement of skin and peripheral nerves, but also nose and eyes
- Spreading probably by respiratory route
- Majority of cases in developing countries (Brazil, Sudan, India, Indonesia, Nepal)

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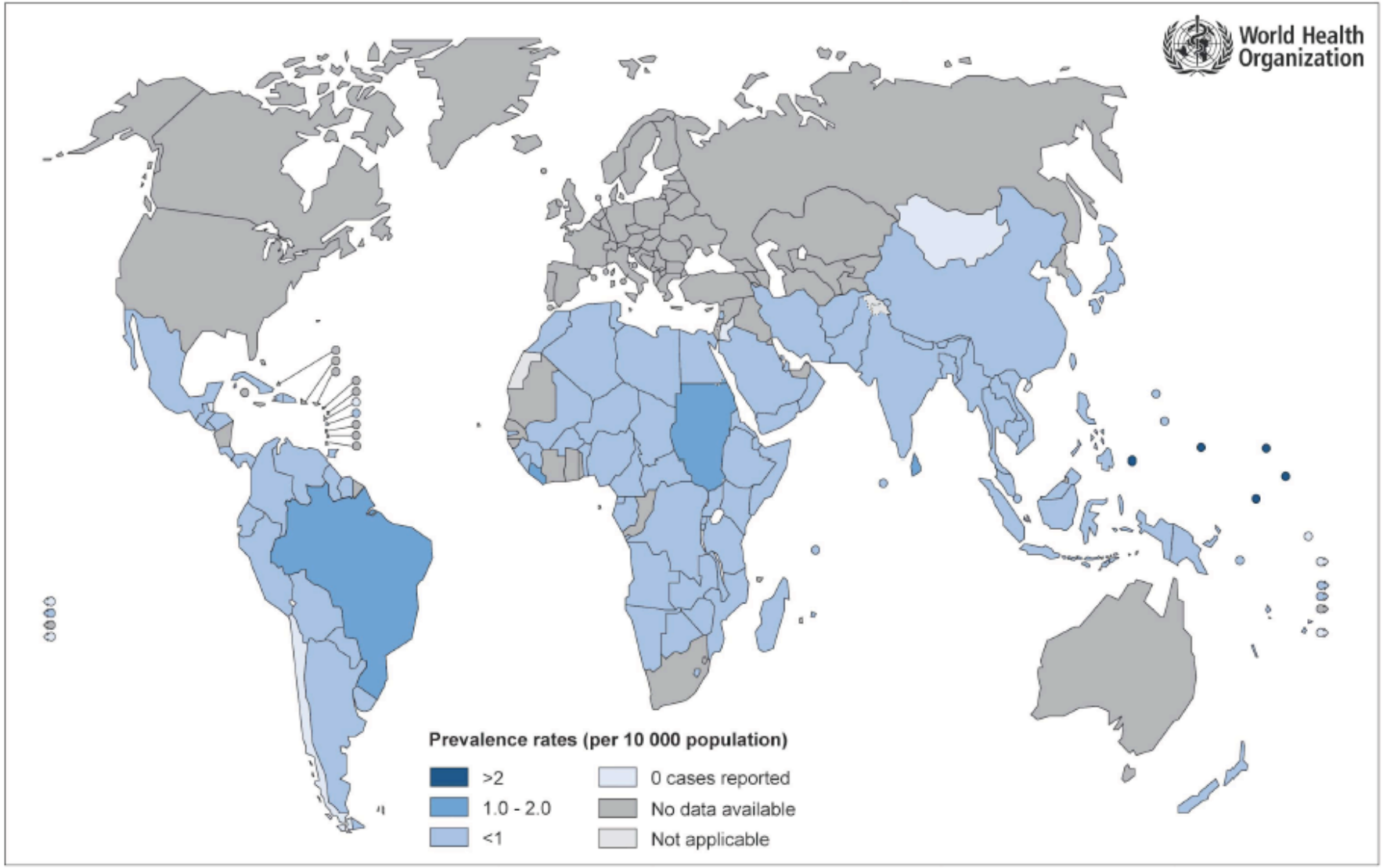
Leprosy prevalence rates, data reported to WHO as of beginning January 2011



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Classification (Ridley Jopling)

Tuberculoid (TT)

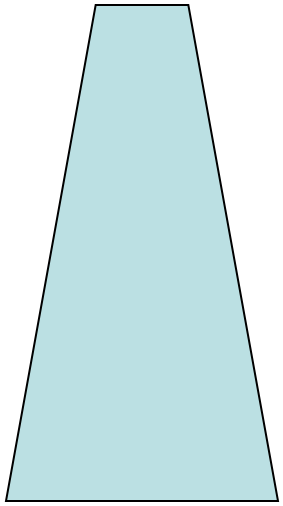
Boderline tuberculoid (BT)

Mid-Borderline (BB)

Borderline lepromatous (BL)

Lepromatous (LL)

paucibacillari



multibacillari

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...but is that all?

- What about the eosinophilia?

  → serologic and stool testing for helminths

  → positive for Strongyloides
- Treatment with Ivermectin 200 µg/kg for two days

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Key points

- Leprosy is still a relevant (but declining) global health concern
- Leprosy involves primarily the **skin** and **nerves** and there are leprosy associated immunologic reactions
- Before starting high dose prednisone in a patient presenting with eosinophilia consider testing for parasites

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