

# **The diagnosis of leprosy**

## **Introduction**

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**Leprosy mailing list, October 2011**

# Definition of leprosy

**Leprosy is a chronic infectious disease caused by *M. leprae*. It affects mainly the skin and the peripheral nerves.**

# “Protean diseases”

**Leprosy: the great imitator**

**Syphilis: “ “**

**SLE: “ “**

**Sarcoidosis “ “**



## Leprosy (TT)

**Courtesy of S. Noto**



**Leprosy (TT)**

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**Courtesy of S. Noto**



## Leprosy (BT)

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**Leprosy (borderline)**



**Courtesy of S. Noto**



**Leprosy (BL)**

**Courtesy of S. Noto**

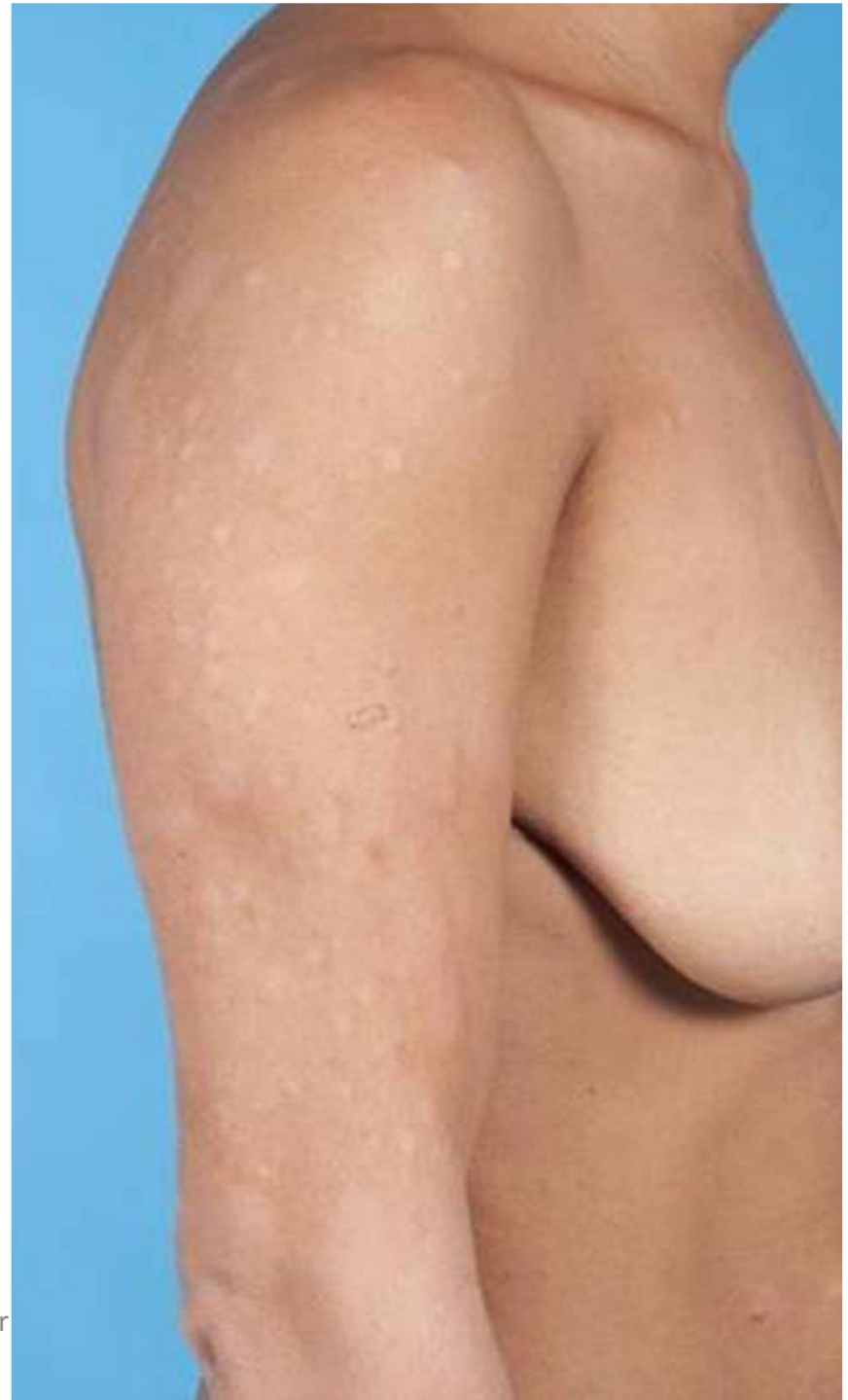




**Leprosy, BL reactive after pregnancy**

**Courtesy of B Naafs**

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## Leprosy, BL reactive after pregnancy



Courtesy of B Naafs

**Leprosy,  
BL  
reactive  
after  
pregnancy**



Courtesy of B Naafs



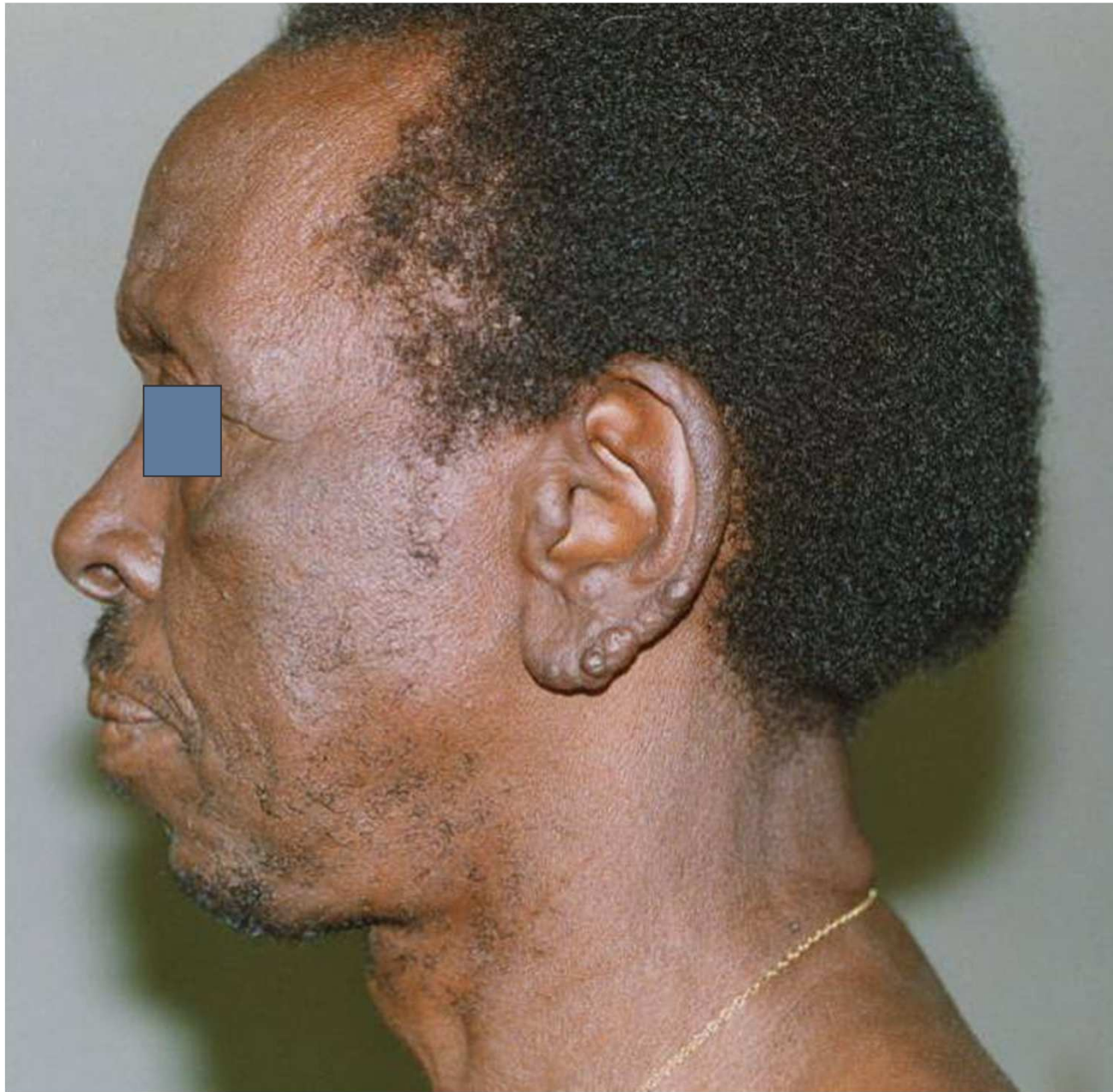
**Leprosy (BT-BL)**

Courtesy of S. Noto leprosy mailing list - October 2011 - Part Introduction



**Leprosy**  
**(borderline in reversal reaction)**

Courtesy of S. Noto



Courtesy of S. Noto

**Leprosy (LL)** leprosy mailing list - October 2011 - Part I  
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**Leprosy, sequelae**

Courtesy of S. Noto

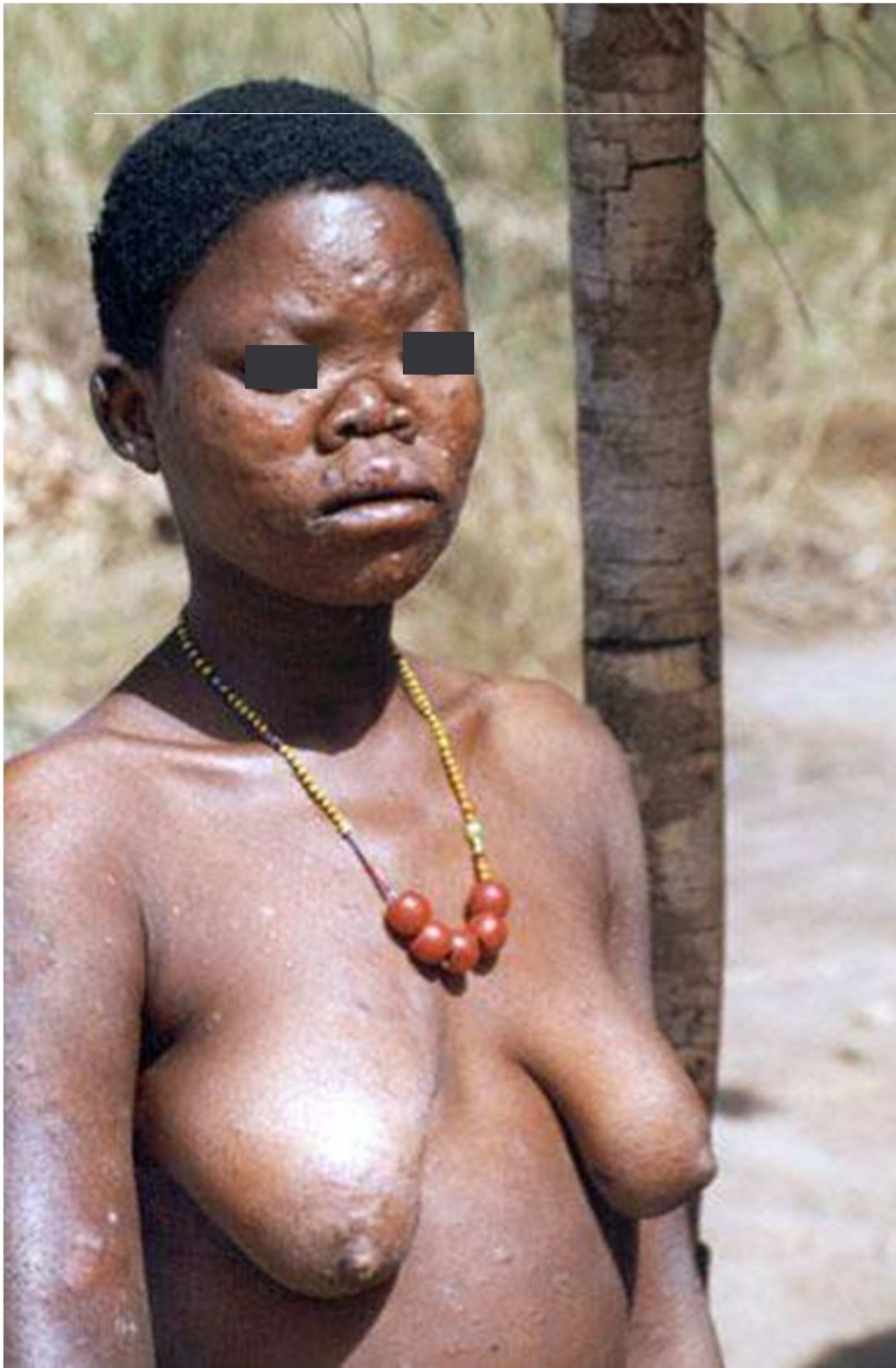


**Leprosy, sequelae**



**Courtesy of S. Noto**



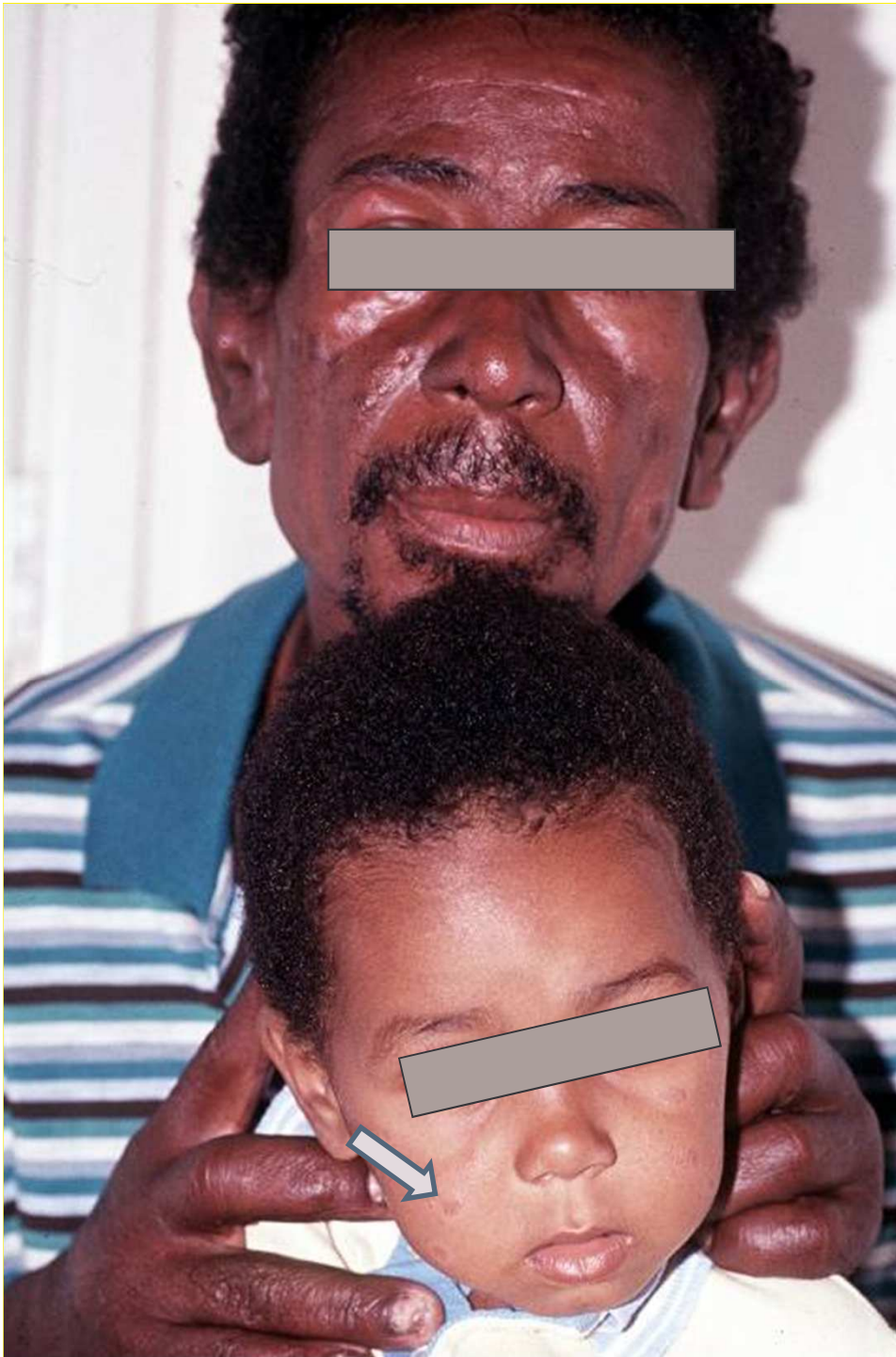


## Leprosy (LL)

Courtesy of S. Noto

# Slides 15,16 and 17

- These patients were all treated with multi-drug therapy. Sequelae in themselves are not an indication to start treatment.
- These kind of patients need urgently physical and social-economic rehabilitation.



**Leprosy in families:  
father and child**

**Courtesy of J A da Costa Nery**

# **Key concepts in clinical leprosy**

- **The 3 cardinal signs of leprosy;**
- **Ridley and Jopling classification;**
- **Reactions and nerve damage.**

## **The 3 cardinal signs of leprosy**

- 1. Skin patch with loss of sensation;**
- 2. enlarged peripheral nerve;**
- 3. positive slit-skin smear.**

## The leprosy spectrum according to the Ridley and Jopling classification

	tuberculoid leprosy <b>TT</b>	borderline leprosy <b>BT    BB    BL</b>	lepromatous leprosy <b>LL</b>
<b>BI</b>	--	--, (1+,2+)	2+, 3+    3+, 4+    5+, 6+

- BT** = borderline tuberculoid leprosy
- BB** = mid borderline leprosy
- BL** = borderline lepomatous leprosy
- BI** = bacteriological index
- - = negative
- + = degree of positivity

# Nerve damage in leprosy

1. dermal nerves;
2. cutaneous nerves;
3. major nerve trunks.

**Source: B Naafs (1994) in E Nunzi, D Leiker, “Manuale di leprologia”**

## **Nerve damage in leprosy**

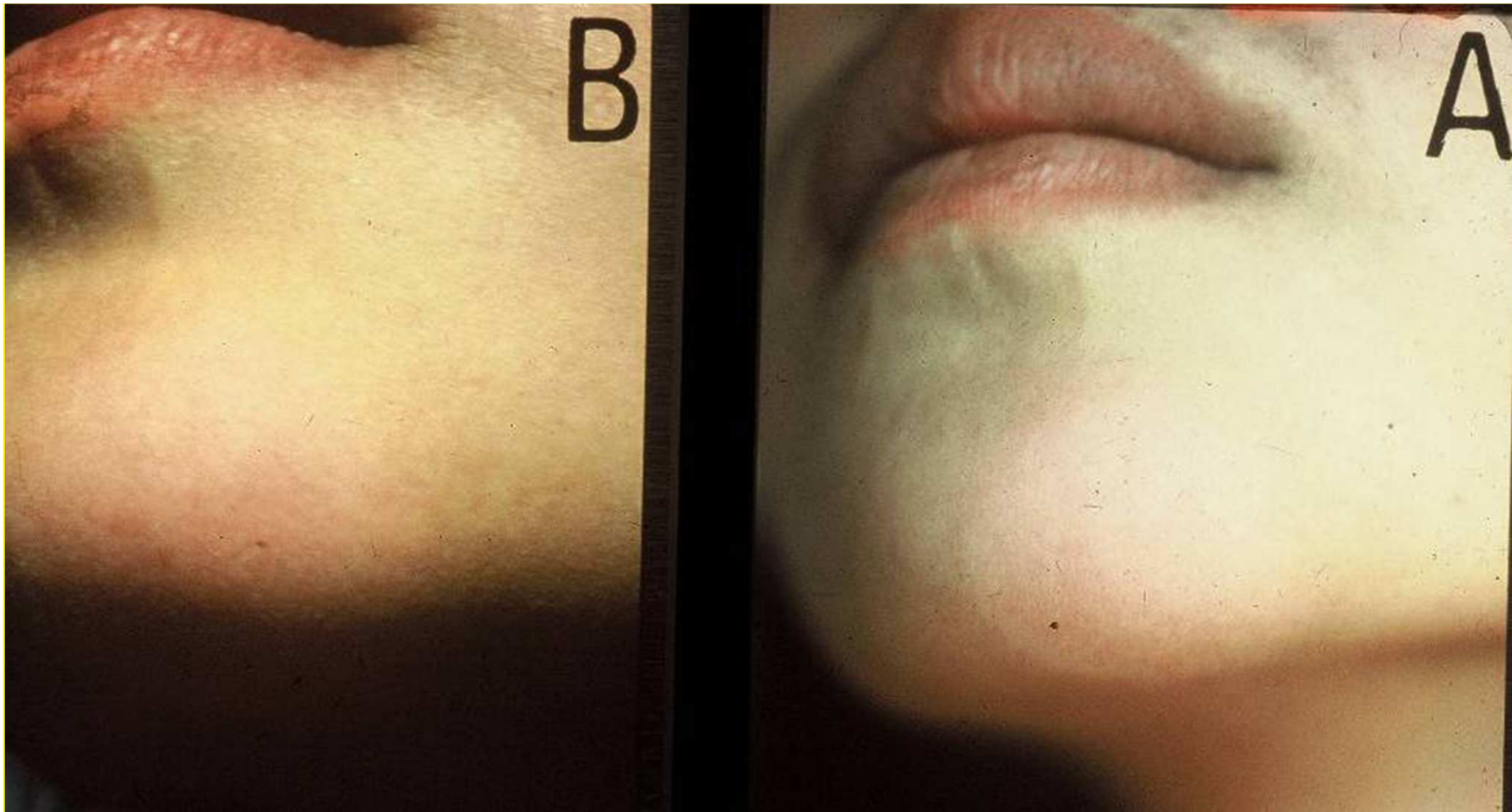
**Most of the nerve damage in leprosy takes place during acute exacerbations of the disease called “Reactions”.**



# How to diagnose leprosy

- history taking;
- physical assessment; and
- laboratory investigations.

- Slides 27 and 28 show the importance of the source of light in clinical examination



Courtesy of Grace Warren

**Skin lesions must be examined in a good light BUT NOT direct sunlight**

Indeterminate leprosy. Compare these photos, same patient, same day, same verandah!  
B. examined in bright sunlight. Note shadows and that lesion can hardly be identified.  
A. a well defined edge for part of the lesion, is apparent. It is slightly erythematous, when seen in good light, but not in sun. Appearance of lesion varies with angle of the rays of light. Tangential light is best, as on front of chin.



**Direct sunlight passing through the foliage of the tree creates false skin lesions!**

Courtesy of S Noto